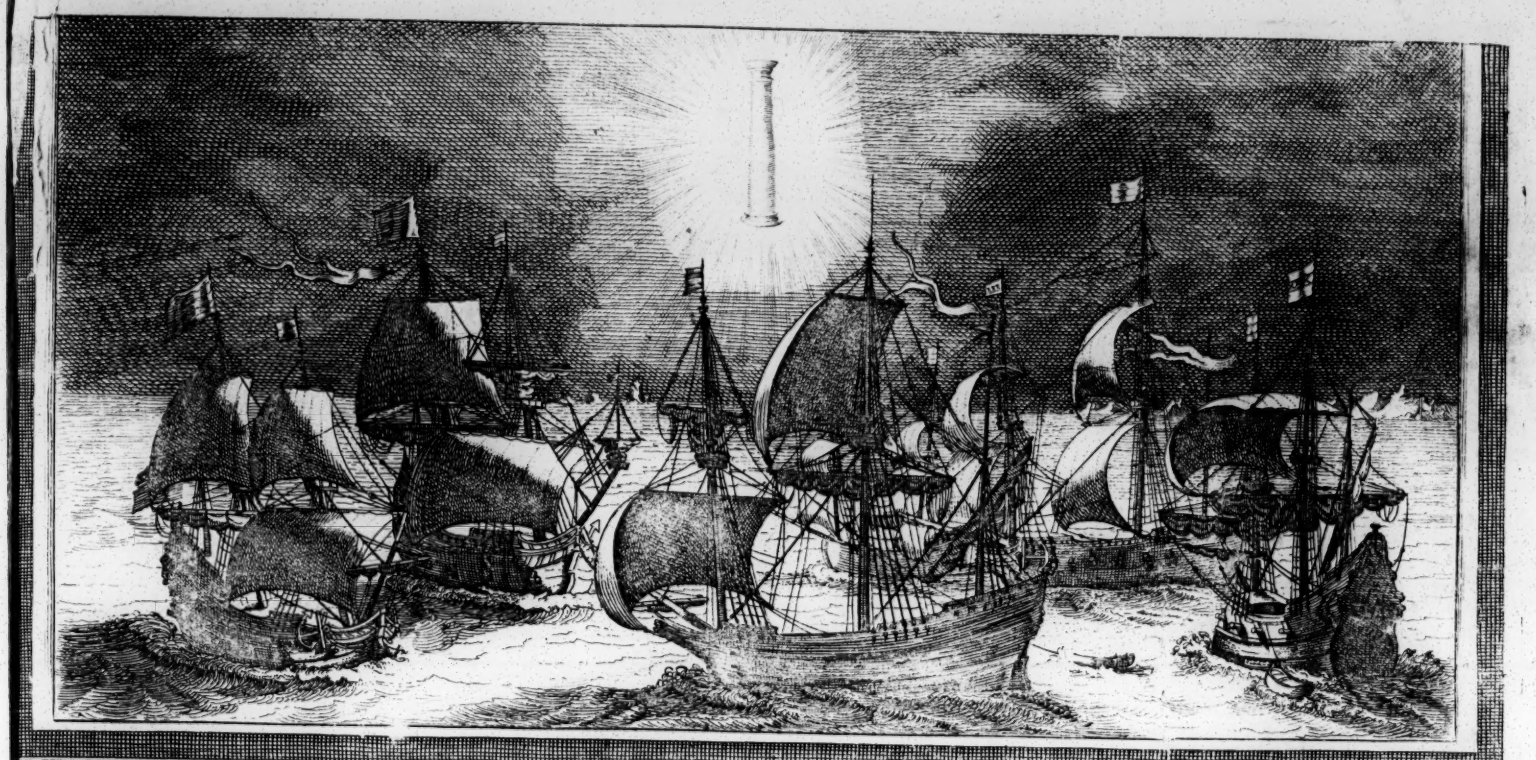


THE

FIERIE SEA-COLVMNE,

Wherein

Are ſhewed the Seas, and Sea-coaſts of the Northern, Eaſtern, and Weſtern Navigation, manifeſtly inlightened, and the failings and miſtakes of the former LICHT or SEA-MIROUR amended.

Gathered from the experience of expert Sea-men, and written by

Iacob Columne.

Hereunto is alſo annexed a breefe inſtruction in the Art of Navigation; together with new Tables of Declination, and an Almanach for ſixteene yeares following.

The Third Edition.

With the Previlege of the High and Mighty Lords, the States Generall, for twelve yeares.

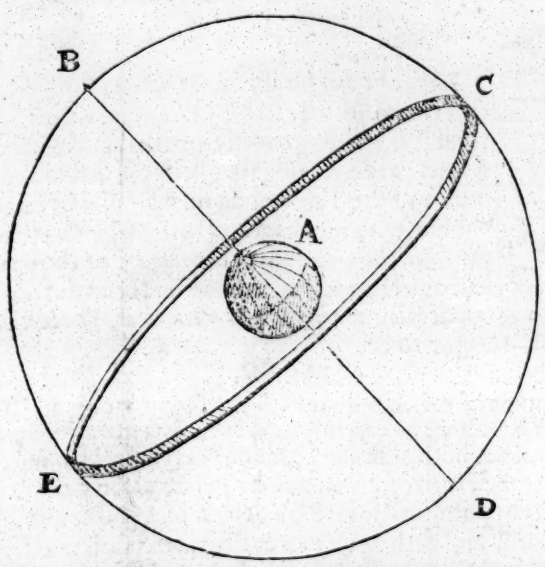
AMSTERDAM,
By IACOB COLVMNE, on the Water in the Fierie Columne. ANNO 1640.

placed
wydne
ly ſet,
paſſe c
dle po
carried
it all t
alſo by
world
brough
gainſt
upon
line,
vens to
right t
& two
the on
from t
under

CHAP. I.

Of the two Poles of the World.

THE Earth with the waters doe make both together a perfect & juſt round Globe , which all the mathematicians by good & infallible reaſons doe confirme , as alſo by experience is found ſo to be. This Globe, the Eternal & omnipotēt God hath firmely placed in the middle of the world , as the Center or middle poynt thereof and hath placed the heavens as a hallow Globe . with ſuch an unmeaſurable wydneſſe round about the ſame , that the diſtance thereof is equally ſet, and ſeparated from the earth in all places, like unto the compaſſe of a circle, which is equally drawne & ſeparated from the middle poynt thereof: and hath ſo ordained , that every 24 houres it is carried about the World : by which dayly motion, it draweth with it all the heavenly lights, as the Sunne, Moon, & all the ſtarrs, which alſo by that means in 24 houres are carried round about the whole world, as is dayly ſeene. The moving or ſtirring of the heavens is brought about upon two ſure poynts , that ſtand directly one againſt the other, in ſuch manner , as if a bale ſhould be turned round upon 2 pinnes , as upon an Axeltre . Suppoſe that you ſee a ſtraight line , ſtreaching out from one of the aforeſayd poynts of the heavens to the other , like unto an Axeltree of the World , that paſſed right through the center (that is through the middle of the earth & two poynt aforeſayd the Pooles or Axeltre poynts of the world the one named from the North the North Pole , the other named from the ſouth the ſouth Pole : Now that this may be better underſtood, I will manifeſt it by this figure.



This figure A ſheweth the Globe of the earth , which unmoueable ſtandeth in the middle of the heavens, which hereby the circle of BCDE is figured out. The line that reached from B to D going through the Earth, ſignifieth the Axeltre of the world, & the poynt from B to D is the Pole or Axeltrees poynt , whereof the one at B is called the North Pole, and the other at D the South Pole , upon which the havens (as Jſaid before) every 24 houres are moved and borne round about the whole Earth.

CHAP. II.

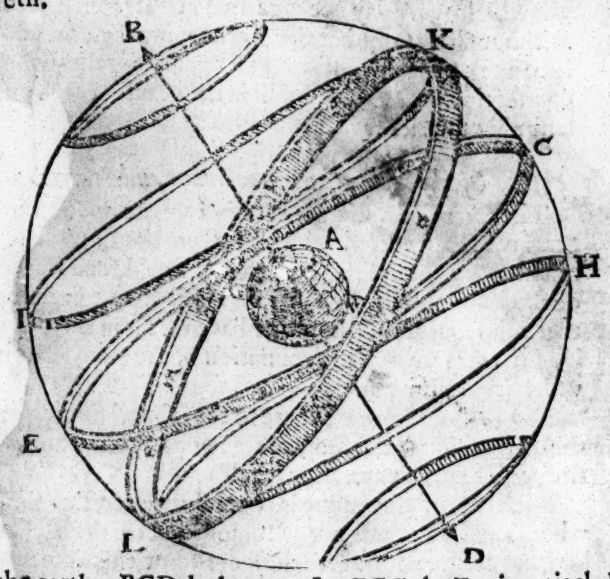
Of the Equinoctiael Line.

The whole circle of the Heavens is devided into 360 degrees or ſteppes , ſo that by the former chapter we may perceive , that the two Poles are diſtant one from the other 180 degrees that is a halfe the circle of the Heavens. Right in the middle betweene both the Poles we ſuppoſe a circle to be placed, which we call Line , or the Equator, and is ſo called becauſe that when ſoever the Sunne commeth to this circle the day and night are of one length through out al the world. This circle is in all places equally diſtant from both the Poles of the world , to wit , 90 degrees , and devided the havens into 2 equall parts , whereof the one reached northward, & is called the north part, the other ſouthward , and is called the ſouth part, as is plainly ſeene in the former figure : where you ſee the chindle E C is the Equinoctiael line ſtanding both of one length from the Poles BD, deviding the Heavens into two equall parts , as the north part EBC, and the ſouth part EDC.

CHAP. III.

Of the Tropices & of the Zodiack.

Three & twentie degrees, 31 minutes & a halfe north ward from the Equinoctiael line there is a circle ſuppoſed to be , which is called Tropicus Cancri , or the courſe of the Sunne in Cancer : For that when the Sunne cometh by courſe unto that circle , he beginneth to turne againe towards the Equinoctiael. And likewiſe 23 degrees 31 mi. & a halfe ſouthwards from the Equinoctiael line , there is another circle ſuppoſe to be, which is called Tropicus Capricorni, or the courſe of the Sunne in Capricorne , that when the Sunne in winter commeth to this circle , he beginneth againe to turne unto the Equinoctiael. Theſe two circles goe round about the Heavens , and are equally diſtant from the Equinoctiael. But how & after what manner touched the Sunne in his courſe (once in the Sommer and another Winter) thoſe two circles? It happeneth thus : We ſuppoſe a great circle to be in the heavens , wherein the Sun holdeth his courſe which lieth croſſe over the Equinoctiael, that is , the one halfe northward, the other halfe ſouthward , in ſuch manner , that in the place where he goeth moſt northward from the Equinoctiael Line , there he entreth into Tropicus Cancri , & where he goeth moſt ſouthward from the Equinoctiael Line , there he entreth into Tropicus Capricorni. The two poynts on places where he paſſed over the Equinoctiael ſtand right over againſt each other, ſo that both the Equinoctiael and theſe two circles are devided into two Equall parts , which parts are called the one the Equinoctiael in Lent , and the other the Equinoctiael in Harueſt which by the figure enſueing more plainly appeareth.



A Is the earth , BCD the heavens , EFCG the Equinoctiael, B the n. pole. D the ſ. pole, & the line BAD the Axeltree of the world, as aforeſaid: the circle KL is Tropicus Cancri , lying northward from the Equinoctiaell line , and the circle HI is Tropicus Capricorni ſouthward from the Equinoctiael line , KFIG is the great circle , wherein the Sunne hath his continuall courſe , lying croſwiſe over the Equinoctiael , reaching northward beyond the line to Tropicus Cancri in K, and ſouthward beyond the line to Tropicus Capricorni in I. The Equinoctiael in Lent is F , & the Equinoctiael in Harueſt is G in the places where this circle and the Equinoctiael paſſe through each other. This circle is commonly called the Zodiack, although the right name thereof be the Ecliptike line , or the paſſage of the Snnne , being the middle part of the Zodiack , for the Zodiack it ſelfe is a circle almoſt 20 degrees broad , that is on each ſide of this cirkel or paſſage of the Sunne , 10 degrees. This circle aforeſaid is devided into 12 even parts each part having a proper ſigne belonging unto it, and every ſigne hath 30 degrees , ſo that the whole circle (as all other circles do) containeth 360 degrees. The names of the ſignes are Aries, Taurus, Gemini, Cancer, Leo, Virgo Libra, Scorpius , Sagittarius , Capricornus Aquarius , and Piſces, and theſe are placed in this manner: Aries beginneth where the Equator and the Zodiack paſſeth through each other, in the Equinoctiael in Lent , & followe in order as aforeſaid, ſo that the beginning of Cancer is juſt at Tropicus Cancri Libra on the other ſide , beginneth where in Equator & the Zodiack paſſe through each other againe in the Equinoctiael of harueſt: & the beginning of Capricornus in where the Zodiack or Ecliptike Line toucheth Tropices Capricornus, &c.

CHAP.

it passing through it every yeare once, that is, every moneth through one signe, and every day almost a degree. Upon the 20 of March new stile, and the 10 of March old stile, when the daies and nights are of one length thorowout the world, then the Sunne entreth into the Equinoctiall, that is to say, into Aries: the 20 or 10 of April he entreth into Taurus, the 20 or 10 of May into Gemini, the 21 or 11 of June into Cancer, upon Tropicus Cancri, and then hee is at the fartheſt of his course northwards from the Equinoctiall, then all thoſe that dwell northward from the line have their longeſt day, and thoſe that dwell ſouthward from the Line their ſhorteſt day. The Sunne holdeth his course, beginneth then to turne againe into the Line, and the 23 or 13 of July entreth into Leo, the 23 or 13 of Auguſt into Virgo and the 23 or 13 of September he commeth againe on the Line, in the beginning of Libra, making the daies and nights againe of one lngth throughout all the world, the 23 or 15 of October he entreth into Scorpio, the 22 or 12 of November into Sagittarius, and the 22 or 13 of December into Tropicus Capricorni, in the beginning of Capricornus then are the dayes longeſt with them that dwell ſouthward from the Line. The 20 or 10 of January, the Sunn commeth further and entreth into Aquarius; About the 18 or 8 of February into Piſces, and the 20 or 10 of March he entreth again into Aries. This ought alſo to be known & marked that this Zodiack ſtandeth faſt with the fixed ſtarres with the which every day hee is carried about from eaſt to weſt, without alteration: that the Sun keeping the aforeſaid yearely course contrariwiſe, from weſt to eaſt thereby in his dayly course is ſo much hindred, that in the year he goeth one time leſſe about then the fixed ſtarres.

CHAP V

Of the declination of the Sunne and Starres.

The Space or diſtance that is betweene the Sun or ſome Stars, is the diſtance or wideneſſe from the Equinoctiall line tending to either of the Poles of the world, and is called the declination, and this declination is of 2 ſorts, to wit, the northern and ſouthern. Therefore have we ſet in this place a table for 16 yeare, of the declination of the Sun; The uſe of which is as followeth.

NOTE. Before we come to the uſe and finding out of the declination of the Sun, we are to obſerve and know what the yeare of the Sun is.

The yeare of the Sunne is, namely, a certaine time, in which the Sun goeth out of ſome point of the Eclipticke line, and commeth again to the ſame point, this time is found to be 365 dayes, 5 houres, 55 minutes, as for Example, the yeare 1628, which wanted little of 6 houres more, or there about, and thoſe 6 houres being added to the fourth yeare; doe make it a yeare of 366 dayes, and that yeare is called the leape yeare. This day is added to the moneth of February, which moneth hath then 29 dayes.

And becauſe here is ſome ſmall difference in the revolution, or comming about of the Sun, by reaſon of ſome and minutes, in theſe 4 yeares, it bringeth in length of time ſuch difference in the declination of the ſun. That we ought as ſome men ſay, not only every 20 yeares, but alſo every 4 yeares, to renew ſuch tables. And to this purpoſe have we calculated with great labour the table of theſe 11 yeares following. So that theſe tables following, are made from the yeare 1637, to the yeare 1647, incluſively as followeth.

Leape yeare.	1 yeare.	2 yeare.	3 yeare.
1637	1638	1639	1640
1641	1642	1643	1644
1645	1646	1647	

What table we are to uſe for each particular yeare, is ſhewed and noted on the head of each of them.

Example.

If you deſire to know in the yeare 1640 (which is Leape yeare) on the 10 of April, the declination of the Sunne, then looke in the table of that yeare the 10 day of April, and tell downward in the firſt Columne of the dayes, there ſhall you by the 10 day find 8 gr. 18 min. for the declination of the Sun. And ſo it is betweene the 20 of March, and the 13 of September, then is the Sun in the n. ſide of the line; and this is the northern declination.

ward to the 12 day of the ſame moneth, and you ſhall finde by the 12 day 7 gr. 24 min. for the declination of the Sunne the ſame day. And becauſe it is betwixt the 23 of September and the 20 of March, it is the ſouthern declination, ſo likewiſe in all the other dayes.

Look how many degrees and minutes the line is raiſed above the Horizon, juſt ſo many degrees & minutes are there betweene the point right over your head, called the Zenith and the pole; and thence it followeth, that as many degrees & minutes as there be betweene the Zenith and the Line, juſt as many are there from the Horizon to the Pole; that is to ſay, ſo many degrees is the Pole elevated, therefore when we ſay we are in ſuch a bight, we underſtand that we are ſo many degrees on the n. or the ſ. ſide of the line. This rule and inſtruction is univerſall and common throughout the whole world both in the n. and ſ. ſide of the line.

An Admonition to the Reader.

If a man would obſerve the height of the Sun, it is neceſſary that he know how many foot he ſtands above the water, for the higher a man ſtands the farther hee is from the Horizon, becauſe that from the eie to the Horizon, is 60 degrees if we ſtand waterpas, as they call it; but if he ſtand higher thē the water, as is ſaid, it will bee more then 60 degrees to the Horizon; And to mend this fault, I have here placed a Table, thereby to know whether we ſtand higher then the water or no, and how many minutes difference it makes, and alſo how much neerer the eie the croſſe ſtandeth, then adding the mi to that which the croſſe ſtandeth below the Zenith, ſo ſhall you mend the fault, that is to ſay, that you ſet the croſſe ſo many minutes downward; look on the table following.

Example.

In this height above the earth	minutes.
feet	
2	1
4	2
8	3
14	4
20	5
27	6
39	7
53	8
67	9
82	10
100	11
118	12
140	13
163	14
186	15

Let your eye be above the water, ſuppoſe 27 feet, that the croſſe may ſtand 45 degrees from the Zenith (that is, beginning to tell from that end where the eye is) theſe 27 feet, being ſought in the firſt ranke, or columne of the Table, and you ſhall find over againſt it 6 minutes, ſo much is the Horizon below; that which they call the waterpas or the ſurface of the water, and ſo many feet muſt the croſſe be thruſt downward, ſo will it fall out 45 degrees 6 minutes, where the croſſe ought to be.

CHAP. V.

Of the vapours and exhalations which the ſunne, moon and Stars, as they are nearer the Horizon do ſeem to draw up more, as indeed and truth they are.

EXperience techeth, that the lights of heaven, by how much they are nearer the Horizon, by ſo much doe they ſeeme to be higher then indeed they are; and by reaſon of the fumes and damps, which continually ariſe and as they are nearer the Horizon, ſo much as they more thicker, and riſing by little and little, they leſſer, and at the laſt are cleane vaniſhed, and as we come nearer the Pole, the vapours do more and more increaſe, and for that cauſe doe the lights ſeem to be higher than they are. Yea it is found about the height of 83 degr. towards the north, that the ſunne ſeemeth to be 40 minutes higher than in truth it is, this hath that famous aſtronomer Ticho Brahe, ſearched out and written in Denmarck; as you may ſee in this table.

A table of the riſing of the ſunne.

When the Sunne ſeemeth to be high	Degrees.	Minutes.	
	0	34	higher than indeed it is.
	1	26	
	2	20	
	4	15	
	7	13	
	10	13	
	13	7	
	23	3	
	32	1	

A table of the riſing of the ſtarres.

When the ſtars are of the high	Degrees.	Minutes.	
	0	30	To be higher than in deed they are
	1	22	
	2	15	
	4 ſeeme	11	
	7	8	
	11	5	
	15	3	

The uſe of this table will we declare by an example and whatſoever may be ſaid of the riſing of the Sunne, the ſame may bee ſaid of the Starres.

Example.

LEt the height of the Sun be meaſured; and found to bee 7 degr. above the Horizon, and in the table of the Sunne above written, there are 13 minutes which the Sun ſeemeth to be higher than it is, therefore ſubſtract 13 mi. from the 7 degrees, there will remaine 6 degrees 47 minutes for the true height of the Sun.

But if we take the diſtance of the Sun from the Zenith according to this example, it would be found to be 83 degrees, and then the 13 mi. added to the 83 deg. the product is 83 deg. 13 mi. for the true diſtance of the ſun from the Zenith, then if we take 83 deg. 13 mi. frō 90 degrees there will remaine 6 deg. 47 mi. as before, and ſo will it be in all the other.

The

Ianuar.			Februar.			March.			April.			May.			June.			Iulie.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	4	1	17	4	1	7	31	1	4	37	1	15	8	1	22	7	1	23	13	1	18	8	1	8	23	1	3	9	1	14	29	1	21	54
2	22	58	2	16	47	2	7	8	2	5	0	2	15	26	2	22	15	2	23	8	2	17	53	2	8	1	2	3	32	2	14	48	2	22	3
3	22	53	3	16	29	3	6	45	3	5	23	3	15	44	3	22	23	3	23	4	3	17	38	3	7	39	3	3	56	3	15	7	3	22	12
4	22	40	4	16	11	4	6	22	4	5	40	4	16	1	4	22	30	4	22	59	4	17	22	4	7	17	4	4	19	4	15	26	4	22	20
5	22	40	5	15	53	5	5	59	5	6	2	5	16	18	5	22	47	5	22	53	5	17	6	5	6	55	5	4	42	5	15	44	5	22	28
6	22	33	6	15	34	6	5	35	6	6	31	6	16	35	6	22	43	6	22	48	6	16	49	6	6	32	6	5	5	6	16	3	6	22	36
7	22	25	7	15	16	7	5	8	7	6	54	7	16	52	7	22	45	7	22	41	7	16	33	7	6	10	7	5	27	7	16	21	7	22	43
8	22	17	8	14	57	8	4	47	8	7	16	8	17	9	8	22	55	8	22	35	8	16	16	8	5	47	8	5	51	8	16	38	8	22	49
9	22	8	9	14	37	9	4	25	9	7	39	9	17	25	9	23	0	9	22	28	9	15	59	9	5	24	9	6	15	9	16	56	9	22	55
10	22	0	10	14	18	10	4	1	10	8	1	10	17	40	10	23	5	10	22	21	10	15	41	10	5	2	10	6	38	10	17	13	10	23	1
11	21	50	11	13	58	11	3	38	11	8	23	11	17	56	11	23	9	11	22	13	11	15	24	11	4	39	11	7	1	11	17	30	11	23	6
12	21	40	12	13	38	12	3	14	12	8	45	12	18	11	12	23	13	12	22	5	12	15	6	12	4	16	12	7	23	12	17	46	12	23	10
13	21	30	13	13	18	13	2	50	13	9	7	13	18	26	13	23	17	13	21	56	13	14	46	13	3	53	13	7	46	13	18	3	13	23	15
14	21	20	14	12	58	14	2	27	14	9	28	14	18	41	14	23	20	14	21	48	14	14	29	14	3	30	14	8	9	14	18	18	14	23	18
15	21	9	15	12	37	15	2	3	15	9	50	15	18	55	15	23	23	15	21	38	15	14	10	15	3	6	15	8	31	15	18	34	15	23	22
16	20	57	16	12	16	16	1	40	16	10	11	16	19	9	16	23	25	16	21	29	16	13	52	16	2	43	16	8	54	16	18	59	16	23	25
17	20	45	17	11	55	17	1	16	17	10	32	17	19	23	17	23	27	17	21	19	17	13	32	17	2	20	17	9	15	17	19	4	17	23	27
18	20	33	18	11	34	18	0	52	18	10	52	18	19	36	18	23	29	18	21	8	18	13	13	18	1	57	18	9	38	18	19	19	18	23	29
19	20	21	19	11	13	19	0	28	19	11	14	19	19	49	19	23	30	19	20	58	19	12	53	19	1	33	19	9	59	19	19	33	19	23	30
20	20	8	20	10	51	20	0	5	E. 20	11	53	20	20	2	20	23	31	20	20	47	20	12	34	20	1	10	20	10	21	20	19	47	20	23	31
21	19	54	21	10	29	21	0	19	21	11	55	21	20	14	21	23	31	21	20	36	21	12	14	21	0	46	21	10	43	21	20	0	21	23	31
22	19	41	22	10	7	22	0	43	22	12	15	22	20	26	22	23	31	22	20	24	22	11	54	22	0	23	22	11	4	22	20	13	22	23	31
23	19	27	23	9	46	23	1	6	23	12	35	23	20	38	23	23	31	23	20	12	23	11	33	23	0	0	E. 23	11	26	23	20	26	23	23	31
24	19	12	24	9	24	24	1	30	24	12	55	24	20	49	24	23	30	24	19	59	24	11	13	24	0	24	24	11	47	24	20	39	24	23	29
25	18	57	25	9	1	25	1	53	25	13	15	25	21	0	25	23	29	25	19	47	25	10	52	25	0	47	25	12	8	25	20	51	25	23	28
26	18	42	26	8	38	26	2	17	26	13	34	26	21	11	26	23	27	26	19	33	26	10	31	26	1	12	26	12	29	26	21	2	26	23	26
27	18	27	27	8	16	27	2	41	27	13	53	27	21	21	27	23	25	27	19	19	27	10	10	27	1	35	27	12	49	27	21	13	27	23	24
28	18	10	28	7	53	28	3	4	28	14	13	28	21	31	28	23	22	28	19	6	28	9	49	28	1	58	28	13	8	28	21	25	28	23	21
29	17	54				29	3	27	29	14	31	29	21	41	29	23	19	29	18	52	29	9	28	29	2	22	29	13	29	29	21	35	29	23	18
30	17	38				30	3	51	30	14	50	30	21	50	30	23	15	30	18	38	30	9	6	30	2	45				30	21	45	30	23	14
31	17	22				31	4	14				31	21	59				31	18	23	31	8	45				31	14	9				31	23	10

The leap yeare Anno 1640

Ianuar.			Februar.			March.			April.			May.			Iune.			Julie.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	5	1	17	8	1	7	13	1	4	55	1	15	22	1	22	13	1	23	9	1	17	57	1	8	7	1	3	26	1	14	44	1	22	1
2	23	0	2	16	51	2	6	50	2	5	17	2	15	40	2	22	21	2	23	5	2	17	41	2	7	44	2	3	50	2	15	2	2	22	10
3	22	45	3	16	34	3	6	27	3	5	40	3	15	57	3	22	28	3	23	0	3	17	26	3	7	22	3	4	13	3	15	21	3	22	18
4	22	48	4	16	16	4	6	4	4	6	3	4	16	14	4	22	35	4	22	55	4	17	10	4	7	0	4	4	36	4	15	40	4	22	26
5	22	41	5	15	57	5	5	41	5	6	26	5	16	31	5	22	42	5	22	49	5	16	54	5	6	37	5	5	0	5	15	58	5	22	34
6	22	34	6	15	39	6	5	17	6	6	49	6	16	48	6	22	48	6	22	43	6	16	37	6	6	15	6	5	23	6	16	16	6	22	41
7	22	27	7	15	20	7	4	54	7	7	11	7	17	5	7	22	54	7	22	37	7	16	20	7	5	53	7	5	46	7	16	34	7	22	47
8	22	19	8	15	1	8	4	31	8	7	33	8	17	21	8	22	59	8	22	30	8	16	3	8	5	30	8	6	9	8	16	51	8	22	53
9	22	11	9	14	42	9	4	7	9	7	56	9	17	37	9	23	4	9	22	22	9	15	46	9	5	7	9	6	32	9	17	9	9	22	59
10	22	3	10	14	23	10	3	43	10	8	18	10	17	52	10	23	8	10	22	15	10	15	30	10	4	44	10	6	55	10	17	26	10	23	5
11	21	53	11	14	3	11	3	20	11	8	40	11	18	8	11	23	13	11	22	7	11	15	11	11	4	21	11	7	18	11	17	42	11	23	9
12	21	43	12	13	43	12	2	56	12	9	1	12	18	23	12	23	16	12	21	58	12	14	52	12	3	58	12	7	11	12	17	58	12	23	14
13	21	33	13	13	23	13	2	33	13	9	23	13	18	37	13	23	20	13	21	50	13	14	34	13	3	35	13	8	4	13	18	14	13	23	18
14	21	22	14	13	3	14	2	9	14	9	34	14	18	52	14	23	23	14	21	41	14	14	15	14	3	12	14	8	25	14	18	30	14	23	21
15	21	11	15	12	42	15	1	35	15	10	6	15	19	6	15	23	25	15	21	31	15	13	56	15	2	49	15	8	48	15	18	46	15	23	24
16	21	0	16	12	20	16	1	22	16	10	27	16	19	20	16	23	27	16	21	21	16	13	27	16	2	25	16	9	10	16	19	0	16	23	26
17	20	48	17	11	59	17	0	58	17	10	48	17	19	33	17	23	29	17	21	11	17	13	18	17	2	2	17	9	32	17	19	15	17	23	28
18	20	36	18	11	39	18	0	34	18	11	9	18	19	46	18	23	30	18	21	0	18	12	58	18	1	39	18	9	45	18	19	30	18	23	30
19	20	24	19	11	18	19	0	10	19	11	30	19	19	59	19	23	31	19	20	49	19	12	39	19	1	15	19	10	16	19	19	13	19	23	31
20	20	11	20	10	56	20	0	13	E. 20	11	50	20	20	12	20	23	31	20	20	38	20	12	19	20	0	52	20	10	38	20	19	57	20	23	31
21	19	58	21	10	35	21	0	37	21	12	11	21	20	23	21	23	31	21	20	27	21	11	59	21	0	28	21	10	59	21	20	10	21	23	31
22	19	44	22	10	13	22	0	59	22	12	31	22	20	34	22	23	31	22	20	15	22	11	38	22	0	5	22	11	20	22	20	23	22	23	31
23	19	30	23	9	51	23	1	24	23	12	50	23	20	47	23	23	30	23	20	2	23	11	18	23	0	19	E. 23	11	42	23	20	35	23	23	30
24	19	15	24	9	29	24	1	48	24	13	10	24	20	58	24	23	29	24	19	50	24	10	57	24	0	42				24	20	48	24	23	29
25	19	1	25	9	7	25	2	11	25	13	30	25	21	8	25	23	27	25	19	37	25	10	37	25	1	6	25	12	23	25	20	59	25	23	27
26	18	46	26	8	44	26	2	35	26	13	49	26	21	19	26	23	25	26	19	23	26	10	16	26	1	29	26	12	54	26	21	11	26	23	25
27	18	30	27	8	21	27	2	58	27	14	8	27	21	29	27	23	23	27	19	10	27	9	45	27	1	53	27	13	5	27	21	22	27	23	22
28	18	15	28	7	59	28	3	22	28	14	27	28	21	38	28	23	20	28	18	56	28	9	23	28	2	16	28	13	25	28	21	32	28	23	19
29	17	58		7	36	29	3	45	29	14	45	29	21	48	29	23	17	29	18	42	29	9	12	29	2	40	29	13	45	29	21	42	29	23	15
30	17	42				30	4	8	30	15	4	30	21	56	30	23	13	30	18	27	30	8	50	30	3	3	30	14	4	30	21	52	30	23	11
31	17	25				13	4	31				13	22	5				31	18	12	31	8	28				31	14	24				31	23	6

Ianuar.			Februar.			March.			April.			May.			June.			Iulie.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	1	1	16	55	1	7	19	1	4	49	1	15	17	1	22	11	1	23	10	1	18	1	1	8	12	1	3	25	1	14	39	1	22	59
2	22	56	2	16	38	2	6	56	2	5	12	2	15	35	2	22	19	2	23	6	2	17	45	2	7	48	2	3	46	2	14	58	2	22	8
3	22	49	3	16	20	3	6	33	3	5	35	3	15	53	3	22	26	3	23	1	3	17	30	3	7	28	3	4	8	3	15	17	3	22	16
4	22	43	4	16	2	4	6	10	4	5	58	4	16	10	4	22	33	4	22	56	4	17	14	4	7	6	4	4	31	4	15	35	4	22	24
5	22	36	5	15	43	5	5	46	5	6	21	5	16	27	5	22	40	5	22	50	5	16	58	5	6	43	5	4	54	5	15	54	5	22	31
6	22	29	6	15	25	6	5	23	6	6	43	6	16	44	6	22	46	6	22	44	6	16	41	6	6	20	6	5	18	6	16	12	6	22	39
7	22	21	7	15	6	7	5	0	7	7	5	7	17	1	7	22	52	7	22	38	7	16	24	7	5	58	7	5	41	7	16	30	7	22	46
8	22	13	8	14	47	8	4	36	8	7	28	8	17	17	8	22	58	8	22	31	8	16	7	8	5	36	8	6	4	8	16	47	8	22	52
9	22	4	9	14	27	9	4	13	9	7	50	9	17	33	9	23	3	9	22	24	9	15	50	9	5	13	9	6	27	9	17	5	9	22	58
10	21	55	10	14	8	10	3	49	10	8	12	10	17	49	10	23	8	10	22	17	10	15	32	10	4	50	10	6	50	10	17	21	10	23	3
11	21	45	11	13	48	11	3	26	11	8	34	11	18	4	11	23	12	11	22	9	11	15	14	11	4	27	11	7	12	11	17	38	11	23	8
12	21	35	12	13	28	12	3	2	12	8	56	12	18	19	12	23	16	12	22	1	12	14	56	12	4	4	12	7	35	12	17	55	12	23	13
13	21	25	13	13	8	13	2	39	13	9	18	13	18	34	13	23	19	13	21	52	13	14	38	13	3	41	13	7	58	13	18	11	13	23	17
14	21	14	14	12	47	14	2	15	14	9	39	14	18	48	14	23	22	14	21	43	14	14	19	14	3	17	14	8	21	14	18	26	14	23	20
15	21	3	15	12	26	15	1	51	15	10	1	15	19	2	15	23	24	15	21	33	15	14	1	15	2	55	15	8	43	15	18	42	15	23	23
16	20	51	16	12	5	16	1	27	16	10	22	16	19	16	16	23	27	16	21	24	16	13	42	16	2	31	16	9	5	16	18	57	16	23	26
17	20	39	17	11	44	17	1	4	17	10	43	17	19	30	17	23	28	17	21	14	17	13	22	17	2	8	17	9	27	17	19	11	17	23	28
18	20	27	18	11	23	18	0	40	18	11	4	18	19	43	18	23	30	18	21	3	18	13	3	18	1	45	18	9	49	18	19	25	18	23	29
19	20	14	19	11	2	19	0	16	19	11	35	19	19	56	19	23	31	19	20	52	19	12	44	19	1	21	19	10	11	19	19	40	19	23	31
20	20	1	20	10	40	20	0	7 E	20	11	45	20	20	8	20	23	31	20	20	41	20	12	24	20	0	57	20	10	33	20	19	54	20	23	31
21	19	47	21	10	18	21	0	31	21	12	6	21	20	21	21	23	31	21	20	29	21	12	4	21	0	34	21	10	54	21	20	8	21	23	31
22	19	33	22	9	56	22	0	55	22	12	26	22	20	32	22	23	31	22	20	18	22	11	43	22	0	10	22	11	16	22	20	20	22	23	31
23	19	19	23	9	34	23	1	19	23	12	46	23	20	44	23	23	30	23	20	5	23	11	23	23	0	13 E.	23	11	37	23	20	33	23	23	30
24	19	4	24	9	12	24	1	42	24	13	5	24	20	55	24	23	29	24	19	53	24	11	2	24	0	36	24	11	58	24	20	45	24	23	29
25	18	49	25	8	49	25	2	6	25	13	24	25	21	6	25	23	28	25	19	40	25	10	41	25	1	0	25	12	19	25	20	57	25	23	27
26	18	34	26	8	37	26	2	29	26	13	55	26	21	16	26	23	26	26	19	27	26	10	21	26	1	23	26	12	39	26	21	8	26	23	25
27	18	18	27	8	4	27	2	52	27	14	4	27	21	26	27	23	23	27	19	13	27	10	0	27	1	47	27	13	0	27	21	19	27	23	23
28	18	2	28	7	42	28	3	16	28	14	22	28	21	36	28	23	21	28	18	59	28	9	38	28	2	15	28	13	20	28	21	30	28	23	20
29	17	46				29	3	39	29	14	41	29	21	45	29	23	18	29	18	46	29	9	17	29	2	38	29	13	40	29	21	40	29	23	16
30	17	29				30	4	2	30	14	59	30	21	54	30	23	14	30	18	30	30	8	55	30	3	1	30	14	0	30	21	50	30	23	12
31	17	12				31	4	26				31	22	3				31	18	16	31	8	34				31	14	19				31	23	7

The ſecond yeare after the leap yeare Anno 1642

Ianuar.			Februar.			March.			April.			May.			Iune.			Iul.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	le	m	da	i.	m	de	da	mi.	da.	d .	mi.	da.	de.	mi.	da.	de	mi.	da.	de.	mi.
1	23	2	1	17	0	1	7	24	1	4	43	1	15	13	1	22	9	1	23	11	1	13	4	1	8	17	1	3	15	1	14	34	1	21	57
2	22	57	2	16	42	2	7	1	2	5	7	2	15	31	2	22	17	2	23	7		17	40	2	8	55	2	3	39	2	14	53	2	22	6
3	22	51	3	16	24	3	6	38	3	5	30	3	15	48	3	22	25	3	23	2	3	7	33	3	7	31	3	4	2	3	15	12	3	22	14
4	22	45	4	16	8	4	6	15	4	5	52	4	16	6	4	22	32	4	22	57	4	17	18	4	7	11	4	4	25	4	15	31	4	22	22
5	22	38	5	15	48	5	5	52	5	6	15	5	16	23	5	22	39	5	22	52	5	17	1	5	6	49	5	4	49	5	15	49	5	22	30
6	22	31	6	15	29	6	5	29	6	6	37	6	16	40	6	22	45	6	22	46	6	16	45	6	6	26	6	5	12	6	16	8	6	22	37
7	22	23	7	15	10	7	5	6	7	7	0	7	16	57	7	22	51	7	22	40	7	16	28	7	6	4	7	5	35	7	16	25	7	22	44
8	22	15	8	14	51	8	4	42	8	7	23	8	17	13	8	22	56	8	22	33	8	16	11	8	5	41	8	5	58	8	16	43	8	22	51
9	21	6	9	14	32	9	4	19	9	7	45	9	17	29	9	23	2	9	22	26	9	15	54	9	5	18	9	6	21	9	17	0	9	22	57
10	21	57	10	14	13	10	3	35	10	8	7	10	17	45	10	23	6	10	22	19	10	15	36	10	4	55	10	6	21	10	17	18	10	23	3
11	21	48	11	13	53	11	3	31	11	8	29	11	18	0	11	23	11	11	22	11	11	15	19	11	4	32	11	7	7	11	17	34	11	23	7
12	21	38	12	13	33	12	3	8	12	8	51	12	18	15	12	23	14	12	22	3	12	15	1	12	4	9	12	7	29	12	17	51	12	23	13
13	21	28	13	13	12	13	2	44	13	9	13	13	18	30	13	23	18	13	21	54	13	14	42	13	3	46	13	7	52	13	18	7	13	23	16
14	21	17	14	12	52	14	2	20	14	9	34	14	18	45	14	23	21	14	21	45	14	14	24	14	3	23	14	8	15	14	18	23	14	23	19
15	20	5	15	12	31	15	1	57	15	9	56	15	18	59	15	23	24	15	21	36	15	14	5	15	3	0	15	8	37	15	18	38	15	23	22
16	20	53	16	12	11	16	1	33	16	10	17	16	19	31	16	23	26	16	21	20	16	13	46	16	2	37	16	8	59	16	18	54	16	23	25
17	20	42	17	11	49	17	1	9	17	10	38	17	19	27	17	23	28	17	21	16	17	13	27	17	2	14	17	9	22	17	19	8	17	23	27
18	20	30	18	11	28	18	0	46	18	10	59	18	19	41	18	23	30	18	21	6	18	13	8	18	1	50	18	9	44	18	19	22	18	23	29
19	20	17	19	11	7	19	0	22	19	11	20	19	19	53	19	23	31	19	20	55	19	12	48	19	1	27	19	10	5	19	19	37	19	23	30
20	19	4	20	10	45	20	0	2 E.	20	11	40	20	20	5	20	23	31	20	20	44	20	12	29	20	1	3	20	10	27	20	19	51	20	23	31
21	19	51	21	10	1	21	0	26	21	12	1	21	20	18	21	23	31	21	20	32	21	12	9	21	0	40	21	10	49	21	20	4	21	23	31
22	19	37	22	10	12	22	0	49	22	12	21	22	20	30	22	23	31	22	20	21	22	11	48	22	0	16	22	11	10	22	20	17	22	23	31
23	19	22	23	9	39	23	1	13	23	12	41	23	20	41	23	23	31	23	20	8	23	11	28	23	0	7 E.	23	11	31	23	20	30	23	23	30
24	19	8	24	9	17	24	1	36	24	13	1	24	20	52	24	23	29	24	19	56	24	11	7	24	0	31	24	11	52	24	20	42	24	23	29
25	18	53	25	8	55	25	2	0	25	13	20	25	21	3	25	23	28	25	19	43	25	10	47	25	0	54	25	12	13	25	20	54	25	23	28
26	18	38	26	8	33	26	2	24	26	13	40	26	21	14	26	23	26	26	19	30	26	10	26	26	1	18	26	12	34	26	21	5	26	23	26
27	18	22	27	8	10	27	2	47	27	13	59	27	21	24	27	23	24	27	19	16	27	10	5	27	1	41	27	12	54	27	21	16	27	23	23
28	18	6	28	7	47	28	3	10	28	14	18	28	21	34	28	23	22	28	18	3	28	9	43	28	1	5	28	13	15	28	21	27	28	23	20
29	17	50				29	3	34	29	14	36	29	21	43	29	23	19	29	18	48	29	9	22	29	2	28	29	13	35	29	21	37	29	23	17
30	17	34				30	3	57	30	14	55	30	21	52	30	23	15	30	18	34	30	9	1	30	2	52	30	13	55	30	21	47	30	23	13
31	17	17				13	4	20				13	22	1				31	18	20	31	8	39				31	14	15				13	23	9

Ianuar.			Februar.			March.			April.			May.			June.			Julie.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	4	1	17	4	1	7	30	1	4	38	1	15	8	1	22	7	1	23	12	1	18	8	1	8	22	1	3	9	1	14	29	1	22	54
2	22	58	2	16	46	2	7	7	2	5	1	2	15	27	2	22	15	2	23	8	2	17	53	2	8	1	2	3	32	2	14	48	2	22	3
3	22	52	3	16	29	3	6	44	3	5	24	3	15	44	3	22	23	3	23	3	3	17	37	3	7	38	3	3	26	3	15	27	3	22	12
4	22	46	4	16	11	4	6	21	4	5	45	4	16	2	4	22	30	4	22	58	4	17	22	4	7	16	4	4	20	4	15	26	4	22	20
5	22	40	5	15	52	5	5	58	5	6	6	5	16	19	5	22	37	5	22	53	5	17	5	5	6	54	5	4	43	5	15	45	5	22	28
6	22	32	6	15	34	6	5	34	6	6	32	6	16	36	6	22	43	6	22	47	6	16	49	6	6	32	6	5	6	6	16	3	6	22	36
7	22	25	7	15	15	7	5	11	7	6	55	7	16	53	7	22	49	7	22	41	7	16	32	7	6	9	7	5	29	7	16	21	7	22	43
8	22	16	8	14	56	8	4	48	8	7	17	8	17	9	8	22	55	8	22	35	8	16	15	8	5	46	8	5	52	8	16	38	8	22	49
9	22	8	9	14	37	9	4	24	9	7	39	9	17	26	9	23	0	9	22	28	9	15	58	9	5	22	9	6	16	9	16	56	9	22	55
10	22	0	10	14	18	10	4	1	10	8	2	10	17	41	10	23	5	10	22	20	10	15	41	10	5	1	10	6	39	10	17	13	10	23	1
11	21	50	11	13	58	11	3	37	11	8	24	11	17	57	11	23	10	11	22	13	11	15	24	11	4	38	11	7	1	11	17	30	11	23	6
12	21	40	12	13	37	12	3	13	12	8	46	12	18	12	12	23	14	12	22	5	12	15	5	12	4	51	12	7	24	12	17	47	12	23	11
13	21	30	13	13	17	13	2	50	13	9	8	13	18	27	13	23	17	13	21	56	13	14	47	13	3	52	13	7	47	13	18	3	13	23	15
14	21	19	14	12	57	14	2	26	14	9	29	14	18	44	14	23	20	14	21	47	14	14	28	14	3	29	14	8	9	14	18	19	14	23	18
15	21	8	15	12	37	15	2	2	15	9	51	15	18	56	15	23	23	15	21	38	15	14	10	15	3	6	15	8	32	15	18	34	15	23	22
16	20	57	16	12	15	16	1	39	16	10	12	16	19	10	16	23	26	16	21	28	16	13	51	16	2	42	16	8	54	16	18	50	16	23	25
17	20	44	17	11	55	17	1	15	17	10	33	17	19	23	17	23	28	17	21	18	17	13	32	17	2	19	17	9	16	17	19	5	17	23	27
18	20	33	18	11	33	18	0	52	18	10	54	18	19	37	18	23	29	18	21	8	18	13	12	18	1	56	18	9	38	18	19	20	18	23	29
19	20	20	19	11	13	19	0	18	19	11	15	19	19	50	19	23	30	19	20	57	19	12	53	19	1	32	19	10	0	19	19	33	19	23	30
20	20	7	20	10	51	20	0	4	E. 20	11	35	20	20	2	20	23	31	20	20	46	20	12	33	20	1	9	20	10	22	20	19	47	20	23	31
21	19	45	21	10	29	21	0	20	21	11	56	21	20	15	21	23	31	21	20	35	21	12	13	21	0	46	21	10	44	21	20	1	21	23	31
22	19	40	22	10	7	22	0	43	22	12	16	22	20	27	22	23	31	22	20	23	22	11	53	22	0	22	22	11	5	22	20	14	22	23	31
23	19	26	23	9	45	23	1	7	23	12	36	23	20	39	23	23	31	23	20	11	23	11	33	23	0	1	E. 23	11	27	23	20	27	23	23	31
24	19	12	24	9	23	24	1	30	24	12	56	24	20	50	24	23	30	24	19	59	24	11	12	24	0	25	24	11	48	24	20	39	24	23	30
25	18	57	25	9	0	25	1	54	25	13	15	25	21	1	25	23	29	25	19	47	25	10	52	25	0	49	25	12	9	25	20	51	25	23	28
26	18	42	26	8	38	26	2	18	26	13	36	26	21	11	26	23	27	26	19	33	26	10	31	26	1	12	26	12	29	26	21	3	26	23	26
27	18	26	27	8	15	27	2	41	27	13	54	27	21	22	27	23	25	27	19	20	27	10	10	27	1	36	27	12	50	27	21	14	27	23	24
28	18	10	28	7	53	28	3	5	28	14	14	28	21	31	28	23	22	28	19	6	28	9	49	28	1	59	28	13	10	28	21	26	28	23	21
29	17	54				29	3	28	29	14	32	29	21	41	29	23	19	29	18	52	29	9	27	29	2	23	29	13	39	29	21	35	29	23	18
30	17	37				30	3	51	30	14	50	30	21	50	30	23	15	30	18	38	30	9	6	30	2	46	30	13	50	30	21	45	30	23	14
31	17	21				31	4	15				31	21	59				31	18	23	31	8	44				31	14	10				31	23	10

The leap yeare Anno 1644.

Ianuar.			Februar.			March.			April.			May.			June.			Julie.			Auguſt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi	da.	de.	mi	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	5	1	17	8	1	7	12	1	4	55	1	15	22	1	22	13	1	23	8	1	17	57	1	8	6	1	3	27	1	14	44	1	22	1
2	23	1	2	16	51	2	6	49	2	5	18	2	15	40	2	22	21	2	23	4	2	17	40	2	7	44	2	3	51	2	15	3	2	22	10
3	22	57	3	16	33	3	6	26	3	5	41	3	15	57	3	22	28	3	22	59	3	17	25	3	7	22	3	4	11	3	15	22	3	22	9
4	22	48	4	16	15	4	6	3	4	6	4	4	16	15	4	22	35	4	22	54	4	17	9	4	6	59	4	4	37	4	15	40	4	22	27
5	22	42	5	15	57	5	5	40	5	6	27	5	16	32	5	22	42	5	22	49	5	16	53	5	6	37	5	5	0	5	15	59	5	22	35
6	22	34	6	15	38	6	5	17	6	6	49	6	16	49	6	22	48	6	22	43	6	16	36	6	6	12	6	5	24	6	16	17	6	22	41
7	22	27	7	15	20	7	4	53	7	7	11	7	17	5	7	22	53	7	22	36	7	16	16	7	5	52	7	5	47	7	16	34	7	22	48
8	22	19	8	15	1	8	4	30	8	7	31	8	17	21	8	22	59	8	22	29	8	16	2	8	5	29	8	6	10	8	16	52	8	22	54
9	22	10	9	14	42	9	4	6	9	7	56	9	17	39	9	23	4	9	22	22	9	15	45	9	5	6	9	6	32	9	17	9	9	22	0
10	22	1	10	14	22	10	3	43	10	8	18	10	17	53	10	23	8	10	22	14	10	15	27	10	4	42	10	6	56	10	17	26	10	23	5
11	21	52	11	14	2	11	3	15	11	8	39	11	18	8	11	23	13	11	22	7	11	15	12	11	4	20	11	7	19	11	17	43	11	23	10
12	21	43	12	13	42	12	2	55	12	9	2	12	18	23	12	23	16	12	21	57	12	14	51	12	3	58	12	7	42	12	17	59	12	23	14
13	21	32	13	13	22	13	2	32	13	9	24	13	18	38	13	23	20	13	21	49	13	14	33	13	3	34	13	8	4	13	18	15	13	23	18
14	21	21	14	13	3	14	2	8	14	9	45	14	18	53	14	23	22	14	21	41	14	14	17	14	3	11	14	8	26	14	18	31	14	23	21
15	21	11	15	12	42	15	1	44	15	10	7	15	19	6	15	23	25	15	21	31	15	13	59	15	2	40	15	8	49	15	18	46	15	23	24
16	21	0	16	12	21	16	1	21	16	10	28	16	19	20	16	23	27	16	21	21	16	13	36	16	2	23	16	9	11	16	19	1	16	23	26
17	20	48	17	12	0	17	0	57	17	10	49	17	19	33	17	23	29	17	21	10	17	13	17	17	2	1	17	9	33	17	19	16	17	23	28
18	20	36	18	11	38	18	0	33	18	11	8	18	19	47	18	23	30	18	21	0	18	12	58	18	1	38	18	9	55	18	19	30	18	23	30
19	20	23	19	11	17	19	0	10	19	11	30	19	19	59	19	23	31	19	20	49	19	12	38	19	1	15	19	10	17	19	19	44	19	23	31
20	20	10	20	10	56	20	0	11	E. 20	11	51	20	20	12	20	23	31	20	20	35	20	12	18	20	0	51	20	10	38	20	19	57	20	23	31
21	19	57	21	10	34	21	0	35	21	12	10	21	20	24	21	23	31	21	20	26	21	11	58	21	0	28	21	11	0	21	20	11	21	23	31
22	19	44	22	10	12	22	0	58	22	12	31	22	20	36	22	23	31	22	20	14	22	11	38	22	0	4	22	11	21	22	20	24	22	23	31
23	19	30	23	9	50	23	1	22	23	12	51	23	20	47	23	23	30	23	20	2	23	11	17	23	0	20	E. 23	11	42	23	20	36	23	23	30
24	19	15	24	9	28	24	1	46	24	13	11	24	20	58	24	23	29	24	19	49	24	10	57	24	0	43	24	12	3	24	20	48	24	23	27
25	19	0	25	9	46	25	2	19	25	13	30	25	21	9	25	23	27	25	19	36	25	10	36	25	1	8	25	12	24	25	20	56	25	23	27
26	18	54	26	8	24	26	2	33	26	13	50	26	21	19	26	23	25	26	19	23	26	10	15	26	1	30	26	12	45	26	21	11	26	23	25
27	18	30	27	8	20	27	2	56	27	14	9	27	21	29	27	23	25	27	19	9	27	9	54	27	1	54	27	13	5	27	21	22	27	23	23
28	18	14	28	7	58	28	3	20	28	14	27	28	21	39	28	23	20	28	19	55	28	9	32	28	2	17	28	13	25	28	21	31	28	23	19
29	17	58		7	35	29	3	43	29	14	46	29	21	48	29	23	17	29	18	41	29	9	11	29	2	41	29	13	45	29	21	41	29	23	15
30	17	41				30	4	6	30	15	4	30	21	57	30	23	13	30	18	26	30	8	48	30	3	5	30	14	5	30	21	52	30	23	11
31	17	25				31	4	29				31	22	5				31	18	12	31	8	28				31	14	24				31	23	6

The first yeare after the leap yeare Anno 1645.

Ianuar.			Februar.			March.			April.			May.			June.			Julie.			Augustt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	0	1	16	55	1	7	18	1	4	50	1	15	18	1	22	11	1	23	10	1	18	0	1	8	11	1	3	22	1	14	39	1	21	59
2	22	56	2	16	37	2	6	55	2	5	13	2	15	36	2	22	19	2	23	6	2	17	45	2	7	50	2	3	45	2	14	58	2	22	8
3	22	49	3	16	20	3	6	32	3	5	36	3	15	53	3	22	27	3	23	1	3	17	29	3	7	27	3	4	9	3	15	17	3	22	16
4	22	43	4	16	1	4	6	9	4	5	58	4	16	11	4	22	34	4	22	56	4	17	13	4	7	5	4	4	32	4	15	36	4	22	25
5	22	36	5	15	43	5	5	46	5	6	21	5	16	28	5	22	40	5	22	50	5	16	57	5	6	42	5	4	55	5	15	54	5	22	32
6	22	28	6	15	24	6	5	22	6	6	42	6	16	45	6	22	47	6	22	44	6	16	40	6	6	16	6	5	18	6	16	12	6	22	39
7	22	20	7	15	5	7	4	59	7	7	6	7	17	1	7	22	52	7	22	38	7	16	24	7	5	57	7	5	41	7	16	29	7	22	46
8	22	12	8	14	46	8	4	35	8	7	29	8	17	17	8	22	58	8	22	31	8	16	7	8	5	35	8	6	4	8	16	48	8	22	52
9	22	4	9	14	27	9	4	11	9	7	51	9	17	33	9	23	3	9	22	24	9	15	49	9	5	12	9	6	27	9	17	5	9	22	58
10	21	55	10	14	8	10	3	49	10	8	13	10	17	47	10	23	8	10	22	17	10	15	30	10	4	49	10	6	50	10	17	22	10	23	4
11	21	45	11	13	47	11	3	25	11	8	35	11	18	4	11	23	12	11	22	9	11	15	14	11	4	26	11	7	13	11	17	39	11	23	8
12	21	35	12	13	27	12	3	1	12	8	57	12	18	19	12	23	16	12	22	1	12	14	56	12	4	3	12	7	36	12	17	55	12	23	13
13	21	25	13	13	7	13	2	38	13	9	18	13	18	34	13	23	19	13	21	52	13	14	37	13	3	40	13	7	58	13	18	11	13	23	17
14	21	14	14	12	44	14	2	14	14	9	39	14	18	49	14	23	22	14	21	43	14	14	19	14	3	17	14	8	21	14	18	27	14	23	20
15	21	2	15	12	26	15	1	50	15	10	2	15	19	3	15	23	25	15	21	33	15	14	0	15	2	54	15	8	43	15	18	42	15	23	23
16	20	51	16	12	5	16	1	27	16	10	23	16	19	17	16	23	27	16	21	23	16	13	41	16	2	30	16	9	5	16	18	57	16	23	26
17	20	39	17	11	44	17	1	3	17	10	44	17	19	30	17	23	28	17	21	13	17	13	22	17	2	7	17	9	28	17	19	12	17	23	27
18	20	26	18	11	22	18	0	36	18	11	5	18	19	44	18	23	30	18	21	3	18	13	3	18	1	44	18	9	50	18	19	27	18	23	29
19	20	14	19	11	1	19	0	12	19	11	25	19	19	56	19	23	31	19	20	52	19	12	43	19	1	20	19	10	12	19	19	41	19	23	30
20	20	0	20	10	39	20	0	8	E. 20	11	46	20	20	9	20	23	31	20	20	41	20	12	23	20	0	57	20	10	34	20	19	54	20	23	31
21	19	47	21	10	17	21	0	32	21	12	6	21	20	21	21	23	31	21	20	29	21	12	3	21	0	33	21	10	55	21	20	7	21	23	31
22	19	33	22	9	55	22	0	55	22	12	26	22	20	33	22	23	31	22	20	18	22	11	43	22	0	10	22	11	16	22	20	20	22	23	31
23	19	18	23	9	33	23	1	19	23	12	45	23	20	44	23	23	30	23	20	5	23	11	22	23	0	13	E. 23	11	37	23	20	33	23	23	30
24	19	4	24	9	11	24	1	43	24	13	6	24	20	56	24	23	29	24	19	52	24	11	1	24	0	36	24	11	59	24	20	45	24	23	29
25	18	49	25	8	50	25	2	6	25	13	26	25	21	16	25	23	28	25	19	39	25	10	41	25	1	1	25	12	19	25	20	51	25	23	27
26	18	34	26	8	26	26	2	30	26	13	45	26	21	6	26	23	26	26	19	26	26	10	20	26	1	24	26	12	40	26	21	8	26	23	25
27	18	21	27	8	4	27	2	53	27	14	3	27	21	27	27	23	23	27	19	13	27	9	59	27	1	48	27	13	0	27	21	19	27	23	23
28	18	2	28	7	41	28	3	17	28	14	23	28	21	36	28	23	21	28	18	59	28	9	38	28	2	11	28	13	20	28	21	30	28	23	20
29	17	46				29	3	40	29	14	42	29	21	46	29	23	18	29	18	45	29	9	16	29	2	35	29	13	40	29	21	40	29	23	16
30	17	29				30	4	3	30	15	0	30	21	55	30	23	14	30	18	30	30	8	55	30	2	59	30	14	1	30	21	50	30	23	12
31	17	12				31	4	26				31	22	3				31	18	15	31	8	33				31	14	20				31	23	9

The second yeare after the leap yeare Anno 1646

Ianuar.			Februar.			March.			April.			May.			Iune.			Julie.			Augustt.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	2	1	16	59	1	7	23	1	4	44	1	15	14	1	22	10	1	23	11	1	18	4	1	8	16	1	3	15	1	14	34	1	21	57
2	22	57	2	16	41	2	7	1	2	5	7	2	15	31	2	22	17	2	23	7	2	17	48	2	7	55	2	3	38	2	14	54	2	22	6
3	22	51	3	16	24	3	6	38	3	5	30	3	15	50	3	22	25	3	23	2	3	17	33	3	7	32	3	4	3	3	15	13	3	22	15
4	22	44	4	16	6	4	6	41	4	5	53	4	16	6	4	22	32	4	22	57	4	17	17	4	7	10	4	4	26	4	15	32	4	22	22
5	22	38	5	15	47	5	5	51	5	6	16	5	16	24	5	22	39	5	22	52	5	17	1	5	6	48	5	4	49	5	15	50	5	22	30
6	22	30	6	15	29	6	5	28	6	6	58	6	16	41	6	22	45	6	22	46	6	16	44	6	6	26	6	5	13	6	16	8	6	22	38
7	22	22	7	15	9	7	5	5	7	7	1	7	16	57	7	22	51	7	22	39	7	16	27	7	6	3	7	5	36	7	16	26	7	22	44
8	22	14	8	14	51	8	4	41	8	7	23	8	17	14	8	22	56	8	22	33	8	16	11	8	5	40	8	5	59	8	16	43	8	22	51
9	22	6	9	14	32	9	4	18	9	7	45	9	17	29	9	23	0	9	22	26	9	15	54	9	5	17	9	6	22	9	17	1	9	22	57
10	21	57	10	14	12	10	3	54	10	8	7	10	17	45	10	23	6	10	22	18	10	15	36	10	4	55	10	6	45	10	17	18	10	23	2
11	21	47	11	13	52	11	3	31	11	8	30	11	18	1	11	23	11	11	22	10	11	15	18	11	4	31	11	7	8	11	17	35	11	23	7
12	21	37	12	13	32	12	3	7	12	8	51	12	18	15	12	23	15	12	22	2	12	15	0	12	4	9	12	7	30	12	17	51	12	23	12
13	21	27	13	13	12	13	2	43	13	9	14	13	18	31	13	23	18	13	21	54	13	14	42	13	3	46	13	7	53	13	18	7	13	23	10
14	21	16	14	12	51	14	2	20	14	9	35	14	18	45	14	23	21	14	21	45	14	14	24	14	3	23	14	8	15	14	18	23	14	23	20
15	21	5	15	12	31	15	1	56	15	9	56	15	19	0	15	23	23	15	21	35	15	14	5	15	3	59	15	8	38	15	18	39	15	23	23
16	20	54	16	12	10	16	1	33	16	10	18	16	19	14	16	23	26	16	21	24	16	13	46	16	2	35	16	9	0	16	18	54	16	23	25
17	20	42	17	11	49	17	1	9	17	10	39	17	19	27	17	23	28	17	21	16	17	13	26	17	2	13	17	9	22	17	19	8	17	23	27
18	20	30	18	11	28	18	0	45	18	11	0	18	19	40	18	23	30	18	21	5	18	13	7	18	1	49	18	9	44	18	19	23	18	23	29
19	20	17	19	11	6	19	0	22	19	11	20	19	19	53	19	23	31	19	20	54	19	12	48	19	1	26	19	10	6	19	19	37	19	23	30
20	20	3	20	10	44	20	0	2	E. 20	11	41	20	20	6	20	23	31	20	20	43	20	12	28	20	1	3	20	10	28	20	19	51	20	23	31
21	19	50	21	10	23	21	0	26	21	12	2	21	20	18	21	23	31	21	20	32	21	12	8	21	0	39	21	10	49	21	20	4	21	23	31
22	19	36	22	10	1	22	0	50	22	12	22	22	20	30	22	23	31	22	20	28	22	11	48	22	0	16	22	11	11	22	20	17	22	23	31
23	19	22	23	9	39	23	1	13	23	12	42	23	20	42	23	23	30	23	20	8	23	11	27	23	0	7	E. 23	11	32	23	20	31	23	23	30
24	19	8	24	9	17	24	1	37	24	13	1	24	20	53	24	23	29	24	19	55	24	11	7	24	0	32	24	11	53	24	20	42	24	23	29
25	18	53	25	8	55	25	2	1	25	13	22	25	21	4	25	23	28	25	19	43	25	10	46	25	0	55	25	12	14	25	20	54	25	23	28
26	18	37	26	8	32	26	2	24	26	13	40	26	21	15	26	23	27	26	19	30	26	10	25	26	1	19	26	12	35	26	21	5	26	23	26
27	18	22	27	8	9	27	2	48	27	14	0	27	21	24	27	23	24	27	19	16	27	10	4	27	1	42	27	12	55	27	21	18	27	23	23
28	18	6	28	7	46	28	3	11	28	14	18	28	21	34	28	23	21	28	19	3	28	9	43	28	2	6	28	13	15	28	21	29	28	23	20
29	17	49				29	3	34	29	14	37	29	21	44	29	23	18	29	18	48	29	9	21	29	2	29	29	13	36	29	21	38	29	23	17
30	17	33				30	3	58	30	14	56	30	21	53	30	23	15	30	18	34	30	9	0	30	2	52	30	13	56	30	21	47	30	23	13
31	17	16				13	4	21				13	22	1				31	18	19	31	8	38				31	14	15				31	23	8

CHAP. VII.

Of the fixed ſtars, their declination, and of the change, in their declination, beſide inſtructions how to know them.

THe declination of the Stars, for the moſt part, may bee underſtood, by the declination of the Sun: and it is twofold; to wit, northern and ſouthern, the northerly declination is, of thoſe ſtars that are placed in the north ſide of the Equinoctiall line, and the ſouthern declination is, of theſe that are ſituat in the ſouth ſide of the Equinoctiall, yet there is thus much difference between the declination of the ſun, and that of the Stars, the declination of the Sun, changeth every day, increaſing and decreaſing, the one halfe of the yeare northerly, the other ſoutherly. But it is not ſo with the fixed ſtars, ſome of them which have northerly or ſoutherly declination, continue alway in the north ſide or ſouth ſide, againe ſome of them are in the ſouth ſide of the line, may come to be in the north ſide of the ſame, and otherſome that have northern declination, may come to have ſoutherly declination; but this is not ſuddenly done, but it requireth much time, yet one of them in ſhort time, than the other, according to the place and ſituation that they have in the heavens, ſome of them doe increaſe or diminiſh in every 3 yeares, one minute, ſo that they need reformation every 10 or 12 yeares; ſome againe cannot change their declination in 40 or 50 yeares not ſo much as a minute, as may be ſufficiently ſhewed from the naturall courſe and motion of the fixed ſtars.

The principall and cleareſt of them, which are moſt fit to be uſed in the art of Navigation, we have ſet in this enſuing diſcourſe, with the true declination of them; from the yeare 1608, as was obſerved by that famous TICHO BRAHE to have been at that time. It is well knowne to all underſtanding and experienced ſeamen how needfull and neceſſary it is to have knowledge of the fixed ſtars, and their uſe, but eſpecially for them that undertake long journies by ſea & for as much as at this day there are many ſailers which know not many of the fixed ſtars; we will beſide their declination, ſhew them a more eaſie and fit meanes, to come to the knowledge of them, and to finde out exactly, when any one of them ſhall come into the ſouth, or to the height, and when they may be profitably uſed.

In the fourth chapter it is ſhewed, that the fixed ſtarres goe once a yeare about the heavens more then the Sunne, ſo that every day they come about 4 minutes further ſouthward, which is every weeke about halfe an houre, and every moneth two houres, which that it may the better bee underſtood, wee will make it evident by an example taken from the Starre called Syrius, or Canis Major the great Dogge, which alwayes followeth a little after the Image of the Gyant Orion and his Girdle, which is called the three Kings, which appeare a little over the great Dogge, it is the greateſt and cleareſt of all the fixed ſtarres, which for the moſt part is knowne unto all Sea-faring men, his declination is ſouthward from the Line 16 degrees, and eleven minutes.

And it is ſouth upon the 24 of January ſtilo novo, at ten of the clock at night. The 23 of February at 8 of the clock at night. The 28 of March at ſix of the clock at night. The 30 of April at foure of the clock in the evening. The 30 of May at two of the clock afternoone. The 28 of June at 12 of the clock at noone, even with the Sun. The 28 of July, at ten of the clocke before noone. The 29 of Auguſt at 8 of the clocke before noone. The 1 of October at ſix of the clock in the morning. The 2 of November at foure of the clock in the morning. The 1 of december at 2 of the clock in the morning. The 28 of December at twelve of the clock at night.

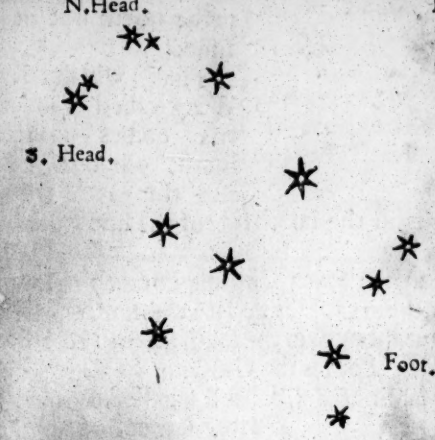
Whereby every man may eaſily reckon at what houre and time this Starre is ſouth every day in the yeare, as well in the day time when you cannot ſee it, as in the night when wee may ſee it. And if you deſire to know the like touching all the reſt of the fixed ſtarres upon eve-

Dogge commeth into the South. and by the Tables hereafter following, touching the declination of the ſtars, marke how long time the Starre you ſeeke for, commeth into the South before or after the great Dogge, and by that meanes you ſhall finde the juſt and perfect time that you deſire.

The table of the declination of the fixed ſtars, and alſo an inſtruction of the time in which each of them commeth into the ſouth, alſo how you ſhall know them.

The Twinnes.

THe figure Gemini (in Engliſh the Twinnes) is ſituated direct north, from the great Dogge, or Canis Major in the ſame manner as it is here deſcribed, the northHead thereof commeth 40 minutes, after the Dogge into the ſouth, his declination is two and thirty degrees, and 37 minutes, from the Line northward.



The ſouth and loweſt head thereof commeth 54 minutes after the great Dogge into the ſouth; and hath his declination towards the north, 28 degrees, 51 minutes.

The cleareſt in the Foot commeth a quarter of an houre before the great Dogge into the South, his declination is 16 degrees and 40 minutes towards the n.

Canis Minor, or the little Dogge, called Canicula. Procyon.

This little Dogge Canicular hath 3 ſtarres, in this forme; the cleareſt of them commeth 50 mi. after the great Dogge into the South: his declination is ſix degrees 8 minutes in the north ſide of the Line.

The Water ſnake, Hydra.

The Harte or the cleareſt in the Waterſnake commeth after Syrius or the great Dog two houres 40 minutes to the ſouth, his declination is, in the ſouth ſide of the Line 7, degrees and 5 minutes, and ſheweth it ſelfe with ſuch little ſtars as are here noted, whereby he is eaſily knowne.

The Lyon.

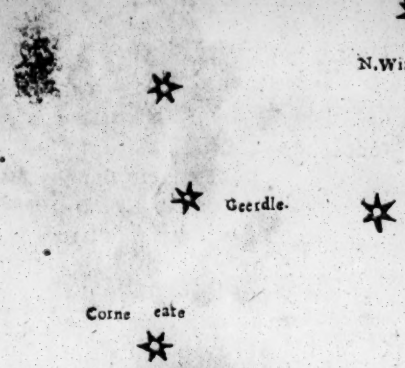
The Lyon hath foure beautifull ſtars, fit for uſe, and ſheweth it ſelfe with other, as is here ſet forth; the firſt and foremoſt of them is called Regulus or Baſiliſcus otherwiſe

the Hart of the Lyon, which commeth 3. houres and 30. minutes, after the great Dogge into the ſouth; his declination 13 gr. forty mi. in the north ſide of the line; the ſecond called the necke of the Lyon 3 ho. 30 mi. after the great Dogge into the ſouth; and hath his declination in the n. ſide of the

Cauda Leonis, south 74 mi. before the great dogge: his declination is in the north side of the line 22 gr. 33 mi. the taile of the lyon comes 5 ho. after the great Dogge into the south: his declination 16 gr. 36 mi. in the north side of the line.

Virgo, or the maide.

Virgo. & Cinhulum Virginis After followeth Virgo, whereof the principall and cleareſt ſhewes this ſhape, as they are here portained: the Girdle of the Virgin comes into the south, ſix houres 12 miuutes after the great Dogge, her declination is five grad. 25 minutes, in the north ſide of the Line.



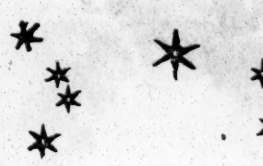
That which is in Wing called Vindemiatrix comes into the south, 9 houres 16 mi. after the great Dogge, here declination is in the north ſide of the line 13 degrees 57 minutes.

Spica Virginis The eare of corne or Spica Virginis cometh 6 houres & 30 minutes after the great Dogge into the south, her declination is 9 gr. 12 minutes in the south ſide of the Line.

Bootes the Crowne.

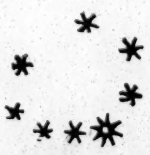
Seven houres 30 minutes after the ſtar called *Syrius*, the cleareſt ſtar of Bootes comes into the south and ſtandeth between his thighes, in this forme, with ſome other ſtars, and is nalled Arcturus, his declination is in the north ſide of the line 21 degrees 8 minutes.

Arcturus.



The northern Crowne.

Corona, Ariadnæ After Bootes followeth the north crowne, beareing fation of a circle, as followeth, of the mariners, it is called the Hoſpital, and when in cleare wether, they behold ſome ſmal ſtars in it, they call them the ſick; the greateſt and cleareſt of then comes 8 houres 48 minutes after the great Dogge in to the south, its declination is in the north ſide of the Line 27 degrees 59 minutes.



The Waights, Libra.

Libra. The ballance or Waights, followe the ſig ne of Virgo as followeth.

The south Ballance comes eight houres after the great Dogge to the south, its declination is in the south ſide of the Line 14 degrees 28 minutes.

The north Ballance comes 8 houres 48 minutes after Syrius to the south, the declination thereof is 7 degrees 58 minutes in the south ſide of the Line.

The Scorpion, Scorpius.

Scorpius Foreheak, The Followeth the Scorpion, as this figure ſheweth, the hart of Scorpius, Antores communely called, comes 9 ho. 48 minutes after *Syrius* in to the south, his declination is 25 degr. 32 minutes in the south ſide of the Line.

Cor ſcorpii.

Antarus Hart;

The Snakebearer, and Hercules,

The Snakebearer, ſheweth him ſelfe, as it appeareth in this figure, the formoſt ſtarre, and that which is moſt toward the north of the two, which ſtande on the left hand, comes 9 houres 25 minutes after the great Dogge into the south, his declination is 2 degrees 44 minut. south from the Line. Serpentarius

Sna, bea, head

The head of the Snakebearer comes 10 houres 40 mi. nutes after Syrius to the south, his declination 12 degrees 53 minutes in the north ſide of the Line.

The head of Hercules ſtandet by the head of Serpentarius, and comes 20 minutes before it into the south, and hath his declination northward 14 degrees 52 minutes. Caput Herculis

Lyra.

Then followes Lyra, in this manner, the greateſt with two little ones by it, which the mariners call the three caſtle the lighteſt and cleareſt ſtarre, come 11 houres 55 minutes after the great Dogge into the south, the declination thereof is 38 degrees 28 minutes is the north ſide of the Line. vulturca-vultur volans

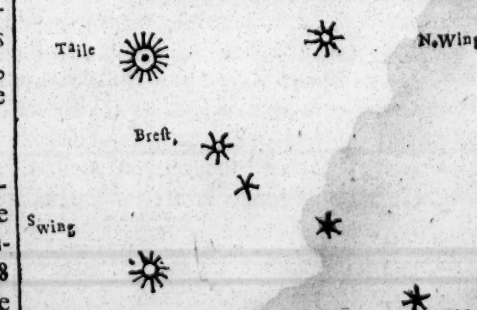
The Eagle.

Sheweth him ſelf as this figure declareth, the cleareſt of theſe that is to ſay the middlemoſt of the three, comes 13 houres after the great Dogge or 11 houres, into the south, the declination thereof is 7 degrees 57 minutes in the north ſide of the Line. Aquila

The Swanne

The ſwanne is ſhaped thus: the ſtarre that is the moſt north in the breſt, cometh 13 houres 40 minutes after or of 10 hores 20 minutes into the south before the great Dogge, and hath his declination in the north ſide of the Line 39 degrees 7 minutes. That which ſtands moſt to the south of the two in the breſt, is a newſtarre, and hath ſhewed it ſelf firſt in the yeer 1600, the north wing comes 10 houres 4 minutes after the Dogge into the south, the northern declination thereof is 44 degrees 13 minutes. Sygnus.

The S. Wing comes 14 houres after the great Dogge into the south, the declination of it is 32 gr. and thirtie mi. in the north ſide of the Line. The lighteſt and cleareſt of the reſt of the Swanne. Cauda Cygni



the Line.

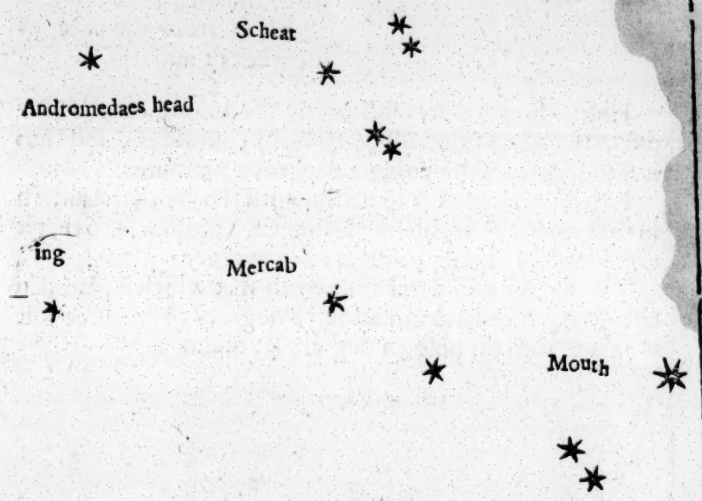
Capricorne.

Capricornus

The moſt ſoutherly and cleareſt of the two lighteſt in the houre of Capricorne, as is here to be ſeen, cometh 13 houres 30 minutes after the great Dogge into the ſouth; the declination is 15 degrees 51 minutes in the ſide of the Line.

The Flying Horſe.

Pegaſus. The Flying Horſe Pegaſus, we may ſee in the heavens in this proportion, the ſtarre in the mouth comes 14 houres 56 minutes after, or 9 houres 4 minutes before the great Dogge into the ſouth, his declination is 8 degrees 7 minuts.



Scheat The north ſide of the line. That which ſtandeth on the right hippe or right legge called the Scheat, theſame comes 16 houres 16 minutes after the great Dogge, or 8 ho. 44 minutes before it into the ſouth, the declination of it is 26 degrees 7 minutes in the north ſide of the Line, at the

Marcab ſame time comes the firſt and foremoſt in to the ſouth; placed in the Wing, which is called Marcab. The declination of it is 13 degrees 16 minutes on the north ſide of the Line.

The laſt and utmoſt in the wing of Pegaſus, comes 16 houres 44 minutes after the great Dogge or 7 houres 16 minutes before it into the ſouth; the declination of it is 13 degrees 9 minutes, in the north ſide of the Line.

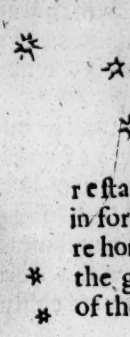
The Head of Andromeda. The Head of Andromeda making with ſome ſtarres of Pegaſus a great quadrangle (whereby it is eaſily knowne) comes after the great Dogge into the ſouth 17 houres 24 minutes or 6 houres 33 minutes before it, the declination is 27 degrees ſix minutes north from the Line.

Andromeda. The Jmage of Andromeda is placed in the Heavens in this ſort: that ſtarre that it is in the girdle comes before the great Dogge into the ſouth 5 hours 40 minuts, hath his declination in the north ſide of the line 33 degr. 43 minutes that which is in the moſt ſoutherlye foot comes 4 ho. 48 minutes before the great Dogge into the ſouth, the declination

the ſludde running from Aquarius, it is a great and cleare ſtarre, and come 16 houres 6 minutes after Syrius or 7 ho. 44 minutes before it into the ſouth; the declination thereof 31 degrees 28 minutes in the ſouth ſide of the Line.

Cetus, or the Whaleſiſh

Cetus After theſe follows the Whaleſiſh, it hath two notable ſtarres in the taile of it, the more northerly comes before the great Dogge into the ſouth 6 houres 28 minutes, the declination of it is 10 degrees 50 minutes in the ſouth ſide of the Line, 24 minutes after comes the ſouthermoſt into the ſouth, and it is in the ſ. ſide of the 20 degrees line, 1 minute.



Menkat The cleareſt in the mouth named Menkar, ſhewes it ſelfe with two other ſtarres in this order, the declination is in the north ſide of the Line 2 degrees 37 minutes.

Aries In the head of Aries there is a cleare ſtarre appeareing with that in the Horne, in form as is here deſcribed, and comes foure houres 43 minutes into the ſouth, before the great Dogge ſtandeth in the north ſide of the line 21 degrees 43 minutes.

Caput Meduſe Somewhat more northerly followeth the head of Meduſa at it is here dechiphered, the cleareſt of theſe comes before the great Dogge into the ſouth 3 houres 46 minutes, and is placed in the north ſide of the Line 39 gr. 24 minutes,

Perſeus Directly north followes perſeus a bright ſtarre in forme thus, and it comes before Syrius into the ſouth three houres and a halfe, hath the declination in the north ſide of the Line 48 degrees 29 minutes.

The followes the image of the Bull in whoſe head there are ſome ſtarres in the forme of a bee-hiue lying a ſide the greateſt, brighteſt, & moſt eaſterly ſtarre, called the eye of the bull, Aldebaran, or Oculus Tauri, comes two houres 14 min. before the great Dogge into the ſouth, his declination is in the north ſide of the Line 15 degrees 46 minutes.

Auriga

The Cochman, Erichtonius.

The figure of Auriga, or the Cochman, ſhowes him ſelfe a little after the Bull in the ſouth, in ſuch ſort as is here dechiphered, the greateſt & brighteſt of them called the goat, hircus, or capella, come 1 houre 40 minutes before the great Dogge into the ſouth; the declination of it is 45 degrees 34 minutes in the north ſide of the line.

Caqpella

The right Schoulder goeth 57 minutes before the great Dogge toward the ſouth; his declination is in the northward 44 degrees, 51 minutes.

alſo called the north Horne of Taurus, goes one houre 22 minutes before the great Dogge into the ſouth; his declination is 28 degrees 15 minuts northward.

The

Orion

Schoulder cometh before Sirius into the south 1 houre 24 minutes; the declination of it is 5 degrees 51 minutes.

The right Schoulder cometh 58 minutes before the great Dogge, and hath 7 degrees 17 minutes of northerly declination. The great and bright Starre in the left Foot called Regel, goeth one houre 32 minutes before the great Dogge into the south; the declination off it is in the south side of the Line 8 degrees 40 minutes.

Regel

Three Kinges,

The first of the three in the Girdle, which are called the three Kinges, goe one houre 16 minutes before Syrius into the south; the declination of it is 36 minutes in the south side of the Line.

Foure minutes after commeth the second or middlemost into the south; the declination is 1 degree 27 minutes.

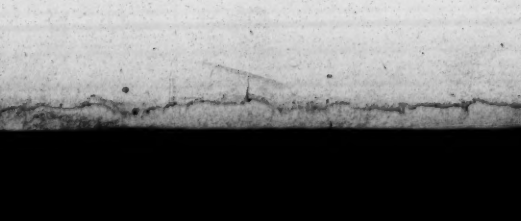
Nine minutes after the first commeth the last or third of the three Kinges into the south; and hath his declination in the south side of the Line 2 degrees 10 minutes.

These three Kinges stand alwayes and appeare a little above the great Dogge, whereby they are ealsiy knowne.

Here doe follow some starres which showe themselves in the north, and therefore by some men may are called Northstarres.

vrsa major

The starres of the great Coach or Wagon, very seruicable and fitte for those that laile farre towards the south;



they come in the time here following specified unto their highest. the hinder wheles come into the north to their highest after Syrius or the greate Dogge 4 houres 12 mi. the most northern hath his declination from the Equinoctiall 63 degrees 33 minutes, and is distant from the pole 26 degrees 17 minutes; the declination of the southermost is 58 degrees 29 minutes, it is distant from the pole 31 degrees 40 minutes.

The southermost of the forewheles comes into the north to his highest right over the pole 5 houres 5 minutes after the great Dogge is past the south; his declination 55 degrees 45 minutes in the north side of the Line, and is distant from the pole 34 degrees 15 minutes.

The most northern in the fore wheele followeth 23 minutes after, and then cometh to his highest; the decliuation of it is 59 degrees 4 minutes and it standeth aboue the Pole 30 degrees 56 minutes.

The Horse next to coach commeth to its highest in the north, 9 houres 8 minutes, after the great Dogge is gone through the south; it declineth to the north 57 degrees 59 minutes; is distant from the Pole 32 degrees 1 mi.

The middlemost horse comes halfe an houre after it to the highest; the declination of it is 56 degrees 52 minutes, therefore it standeth distant from the pole 33 degrees 8 minutes.

The uttermost horse of the coch cometh to the highest 7 houres 4 minutes after Sirius is past through the south, the declination of it is 51 degrees 11 minutes, it is distant from the pole 21 degrees 49 minutes.

The middlemost & brightest of the waiters declined to the north 75 degrees 43 minutes, is distant from the pole 4 degrees 17 minutes.

course following.

Caput Draconis

The dragons head is formed as this figure declareth, the star most southerly is the cleareste, & cometh to the highest in the north 11 houres and 5 minutes after that Sirius is past the south, the declination 51 degr. 37 minutes in the north side of the Line; standeth from the Pole 38 degrees 23 minutes.

Cassiopea

The Image of Cassiopea sheweth it self beneat the pole in this proportion, the first star standing in the Chaire, cometh into the north to the highest 6 houre 36 minutes before the great dogge, the declination of it is 57 degrees 9 minutes to the north, and therefore standeth from the pole 32 degrees 51 minutes.

Hippe

Knee.

Chaire

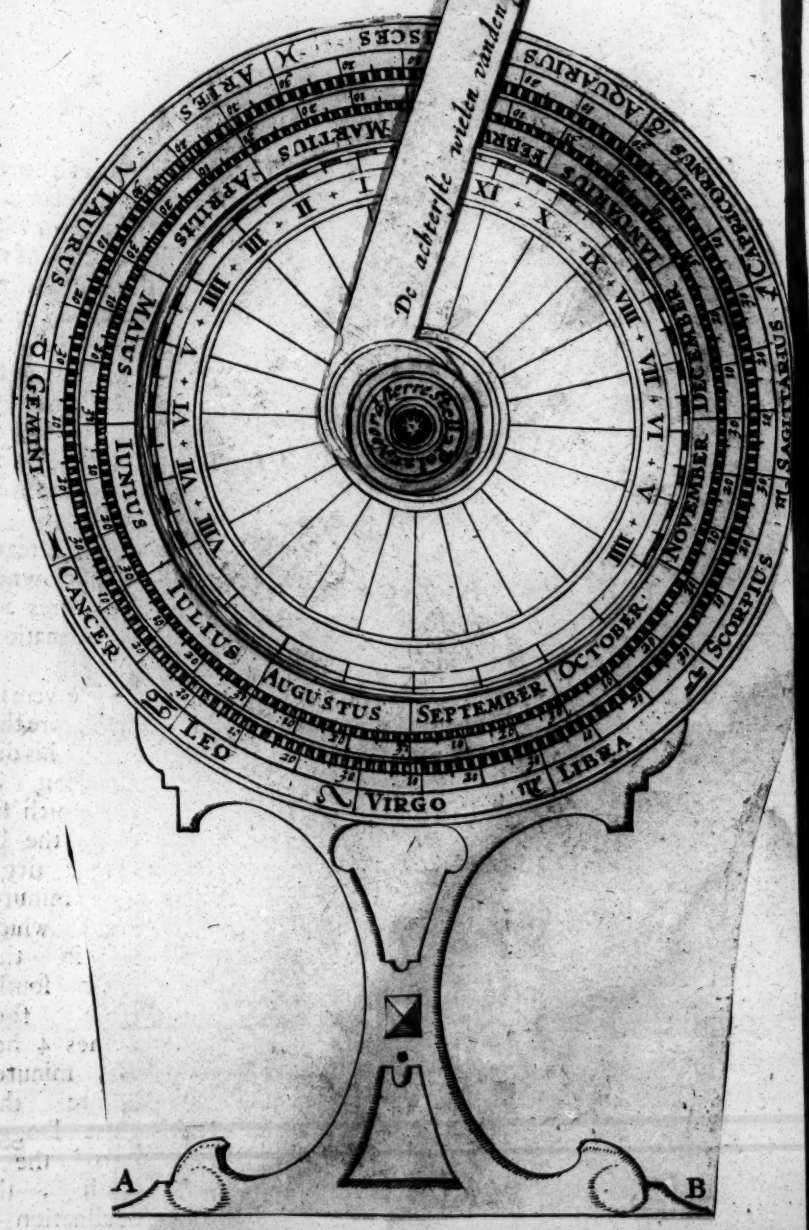
brest

Schedir

Half an houre after followeth the brest nam[illegible]edir, the declination is 54 degrees 33 minutes [illegible]ius it standeth from the pole 75 degrees 27 minute[illegible]

Fifteen houres after that followeth the star [illegible]deth in the hippe, in declined 58 degrees 45 min[illegible] that it standeth for the pole 31 degr. 15 minutes.

Yet 27 minutes later followeth that w[illegible]placed in the knee, hath its declination 58 degrees [illegible]utes, it is distant from the pole 31 degrees 42 min[illegible]



How to find the houre of the day or of the night.

To finde the houre of the day at any hight, will be done moſt reddily and certainely with ſuch a water compas, as is deſcribed in the chapter of the ebbing and ſtoting of the ſea; in the night one may finde it by the nightdiall, as this figure aboue deſcribeth, which hath two rondels; the one moueable, the other unmoueable, in the loweſt which is unmoueable are the 12 ggnes of heauen placed as alſo the moneths and dayes of the yeere. On the moueable rondel are the houres, this turnes with the gnomen, whoſe right ſide anſwereth to the middelpoint where there muſt be a naile with a hole; through which a man may ſee. The uſe of this night diall is this: We ſet firſt the foot to the twelf houre on the moueable rondel, and to the day of the yeere, on the undermoſt unmoueable rondel, and ſet the Inſtrument hight, with the loweſt corner of the foot A B, ſo that it ſtand water-pas, in ſuch ſort, that a man may ſee the North-Star through the hole of the naile, turneing the diall up and downe, ſo long till the hinder wheeles of the great Wagen come into the diall, which being ſo, the gnomen ſhall ſhew the houre on the moueable rondel. And if in place of the hinder wheeles of the wagon you take the brighteſt of the wachtmen, it will be 4 houres 15 minutes later, as the diall will ſhew, becauſe the wheeles aforeſayd of the great cart goe ſo much before the wayters.

Men may finde the houre by the aſcenſion of the Sunne and the ſtarres in this manner; when we ſee any ſtar in the ſouth, whole juſt aſcenſion is knowne, and that we know the true aſcenſion that day, then draw the aſcenſion of the Sunne from the aſcenſion of the ſtar, the remainder we devide into houres by 15, (for 15 degrees make 1 houre) and this will the the right houre of the time, but if the aſcenſion of the Sunne be more then the ſtars, in that cauſe you ſhall add 360 degrees to the aſcenſion of the ſtar, and then do as aforeſayd.

I. Example.

On the 10 of Aprill, in the evening, in the ſouth J ſee the hart of the Lyon, whoſe right aſcenſion is 14 degrees, the aſcenſion of the Sunne on that day is 19 degrees, take thoſe from the aſcenſion of the ſtar, there remaines 128 degrees, and theſe devided by 15, I finde 8 houres 8 degrees ouer plus, and for as much as 15 degrees make one houre, every degree wil make 4 minutes, the 8 degrees ouer plus, make 32 minutes of an houre, it wil be than at that time 8 houres 32 minutes from the noonetide.

II Example.

On the 5 of November in the night J finde in the ſouth the ſtar Aldebaran, the ſouth eye of the Bull, whoſe right aſcenſion is 64 degrees: the Sunnes right aſcenſion on that day 220 degrees, which is more then that of Aldebaran, therefore J add to the aſcenſion of the ſtar 360 degrees, it makes 424 degrees, the Sunnes right aſcenſion being taken from this, there remaines 204 degrees, which difference betweene the aſcenſion of the Sunne & the ſtarr aforeſayd, which being devided by 15 you ſhall finde 13 houres 8 deg. which make 36 minutes, it is then 13 houres 36 minutes from the noonetide, that is 1 houre 36 minutes after midnight.

How to finde the accenſion on any day in the yeere, of the Sunne and the ſtarrs, we haue here adioyneth two tables, the one of the *Sunne*, ſhowing from fiue dayes, to 5 dayes the *Sunnes* aſcenſion, out of which you may eaſily finde the ſame in other dayes. The other for thirtie of the primeſt fixed ſtarres, both of them onely by degrees, that being ſufficient for this buſineſſe.

Chap. IX.

A table of the right aſcenſion of the Sunne.

The firſt unmber in the table ſheweth the day of the Moneth, the ſecond of degrees of the aſcenſion, of the Sunne on that day.

da	gra,	da,	gra.	da,	gra,	da.	gra,	da,	gra	da,	gra
5	287	5	319	5	346	5	14	5	42	5	73
10	292	10	324	10	351	10	19	10	47	10	78
15	297	15	329	15	355	15	24	15	52	15	83
20	303	20	334	20	360	20	28	20	57	20	88
25	308	25	339	25	4	25	33	25	62	25	94
31	314	28	342	31	10	30	38	31	68	31	99

Iulie.		Augu.		Septem		Octob.		Novem		Decem	
da,	gra,	da,	gra,	da,	gra,	da,	gra,	da,	gra,	da,	gra.
5	104	5	135	5	164	5	191	5	220	5	251
10	109	10	140	10	168	10	195	10	225	10	257
15	114	15	145	15	173	15	200	15	231	15	263
20	119	20	149	20	177	20	205	20	236	20	268
25	124	25	154	25	182	25	210	25	241	25	274
31	130	31	159	30	187	31	215	30	246	31	2

A Table of the right aſcenſion of the primeſt ſtarres.

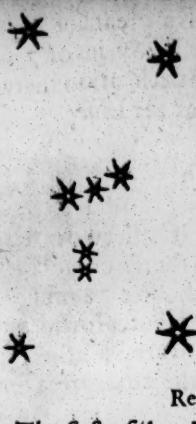
The girdle of Andromeda.	12 degrees.
The cleareſt in the head of the Ram.	27 degrees.
Menkar the brighteſt in the mouth of the Whale.	41 degrees.
Aldebaran, the ſouth eye of the Bull.	64 degrees.
Capella in the left ſhoulder of Erichtonius	72 degrees.
Regel the left foot of Orion	74 degrees.
The ſtar in the left ſhoulder of Orion.	84 degrees.
Syrius the great dogge.	97 degrees.
The north head of Gemini.	180 degrees.
The ſouth head of Gemini	111 degrees.
Procyon the little dogge	110 degrees.
The brighteſt in the waterſnake, Gor Hydræ,	137 degrees.
Regulus the Hart of the Lyon.	147 degrees.
The taile of the Lyon.	172 degrees.
Vendemiatrix the right wing of Virgo	191 degrees.
Spica virginis the eare of corne	196 degrees.
Arcturus the brighteſt in Bootes	210 degrees.
Arcturus the brighteſt in Bootes	218 degrees.
The ſouth Waight.	210 degrees.
The north Waight.	224 degrees.
The brighteſt in the north Crowne.	230 degrees.
Antares, the Hart of the Schorpion	242 degrees.
The head of Hercules.	254 degrees.
The head of Serpentarius	259 degrees.
The tayle of the Eagle	281 degrees.
Vultur the cleareſt in the Eagle.	293 degr.
The ſtar in the mouth of the horſe Pegaſus.	321 degr.
Formohant the brighteſt in the end of Aquarius	339 degr.
Marcab the ſack or foot of Pegaſus.	342 degr.
The uttermoſt in the wing of Pegaſus.	358 degr.
The moſt northerly in the Whales taile.	360 degr.

A table of the declination of the cheſe of the fixed ſtarres, with their diſtance from the Pole, in the yeare 1635 & 1645.

Theſe ſtarres following are all of them placed in the ſouth ſide of the Equinoctiael Line, and have ſoutheriy declination.

	Anno 1635.				Anno 1645.			
	Southerly declination.		The diſt frõ the Pole.		Southerly declination.		The diſt frõ the Pole.	
	gr.	mi.	gr.	mi.	gr.	mi.	gr.	mi.
	10	50	79	19	10	46	79	14
The northermoſt in the whales taile.	20	1	68	59	19	57	70	3
The ſouthermoſt in the whales taile.	8	40	81	29	8	39	81	21
Regel, the left foot of Orion.								
The firſt of the three in the girdle of Orion, or the three Kings.	0	36	89	24	0	26	89	24
The ſecond in the girdle, or 3 Kings.	1	27	88	3	1	37	88	33
The third.	2	10	87	30	2	10	87	50
The great Dogge, Syrius.	16	12	73	48	16	13	73	47
The hart of the waterſnake.	6	5	82	5	7	8	82	52
Spica Virginis, or the corneare.	9	12	80	48	9	15	80	45
The ſouth balance.	14	28	75	32	14	30	75	30
The north Balance.	7	58	82	2	8	1	81	59
The northermoſt and firſt it the left hand of the ſnakeberer Ophiuchus	2	44	87	19	2	46	87	14
The left knee of Ophiuchus.	6	44	80	16	9	46	80	14
The right knee of the ſnakeberer.	15	11	74	49	15	12	74	48
Antares the hart of the Scorpion.	25	30	64	28	25	33	74	27
The northermoſt of the 2 in the hornes of Capricorne.								
The ſouthermoſt of the two.	13	34	76	26	13	33	76	27
The former or moſt weſterly, of the 2 ſtarres in the taile of Capricorne.	15	51	74	9	15	50	74	10
The ſecond moſt eaſterly.	18	10	71	48	18	10	71	50
The left ſhoulder of Aquarius.	17	41	72	19	17	39	72	21
The right ſhoulder of Aquarius.	7	6	82	54	7	4	82	56
The uttermoſt of aquarius named Famahaad.	2	3	87	57	2	0	88	0
	3	128	58	32	32	25	58	35

Orion



Schoulder cometh before Sirius into the south 1 houre 24 minutes; the declination of it is 5 degrees 51 minutes.

The right Schoulder cometh 58 minutes before the great Dogge, and hath 7 degrees 17 minutes of northerly declination. The great and bright Starre in the left Foot called Regel, goeth one houre 32 minutes before the great Dogge into the south; the declination off it is in the south side of the Line 8 degrees 40 minutes.

Regel

Regel

The first of the three in the Girdle, which are called the three Kinges, goe one houre 16 minutes before Syrius into the south; the declination of it is 36 minutes in the south side of the Line.

Three Kinges,

Foure minutes after commeth the second or middlemost into the south; the declination is 1 degree 27 minutes.

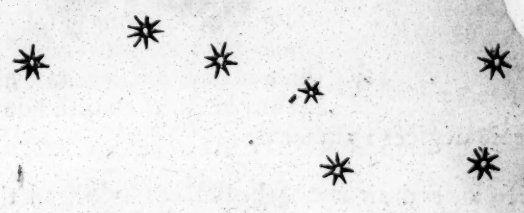
Nine minutes after the first commeth the last or third of the three Kinges into the south; and hath his declination in the south side of the Line 2 degrees 10 minutes.

These three Kinges stand alwayes and appeare a little above the great Dogge, whereby they are ealsiy knowne.

Here doe follow some starres which showe themselves in the north, and therefore by some men may are called Northstarres.

The starres of the great Coach or Wagon, very seruicable and fitte for those that saile farre towards the south;

vrsa major



they come in the time here following specified unto their highest. the hinder wheles come into the north to their highest after Syrius or the greate Dogge 4 houres 12 mi. the most northern hath his declination from the Equinoctiall 63 degrees 33 minutes, and is distant from the pole 26 degrees 17 minutes; the declination of the southermost is 58 degrees 29 minutes, it is distant from the pole 31 degrees 40 minutes.

The southermost of the forewheles comes into the north to his highest right over the pole 5 houres 5 minutes after the great Dogge is past the south; his declination 55 degrees 45 minutes in the north side of the Line, and is distant from the pole 34 degrees 15 minutes.

The most northern in the fore wheele followeth 23 minutes after, and then cometh to his highest; the declination of it is 59 degrees 4 minutes and it standeth aboue the Pole 30 degrees 56 minutes.

The Horse next to coach commeth to its highest in the north, 9 houres 8 minutes, after the great Dogge is gone through the south; it declineth to the north 57 degrees 59 minutes; is distant from the Pole 32 degrees 1 mi.

The middlemost horse comes halfe an houre after it to the highest; the declination of it is 56 degrees 52 minutes, therefore it standeth distant from the pole 33 degrees 8 minutes.

The uttermost horse of the coch cometh to the highest 7 houres 4 minutes after Sirius is past through the south, the declination of it is 51 degrees 11 minutes, it is distant from the pole 21 degrees 49 minutes.

The middlemost & brightest of the waiters declined to the north 75 degrees 43 minutes, is distant from the pole 4 degrees 17 minutes.

course following.

Caput Draconis

The dragons head is formed as this figure declareth, the star most southerly is the clearest, & cometh to the highest in the north 11 houres and 5 minutes after that Sirius is past the south, the declination 51 degr. 37 minutes in the north side of the Line; standeth from the Pole 38 degrees 23 minutes.

Cassiopea

The Image of Cassiopea sheweth it self beneat the pole in this proportion, the first star standing in the Chaire, cometh into the north to the highest 6 houre 36 minutes before the great dogge, the declination of it is 57 degrees 9 minutes to the north, and therefore standeth from the pole 38 degrees 51 minutes.

Hippe

Knee.

Schedir

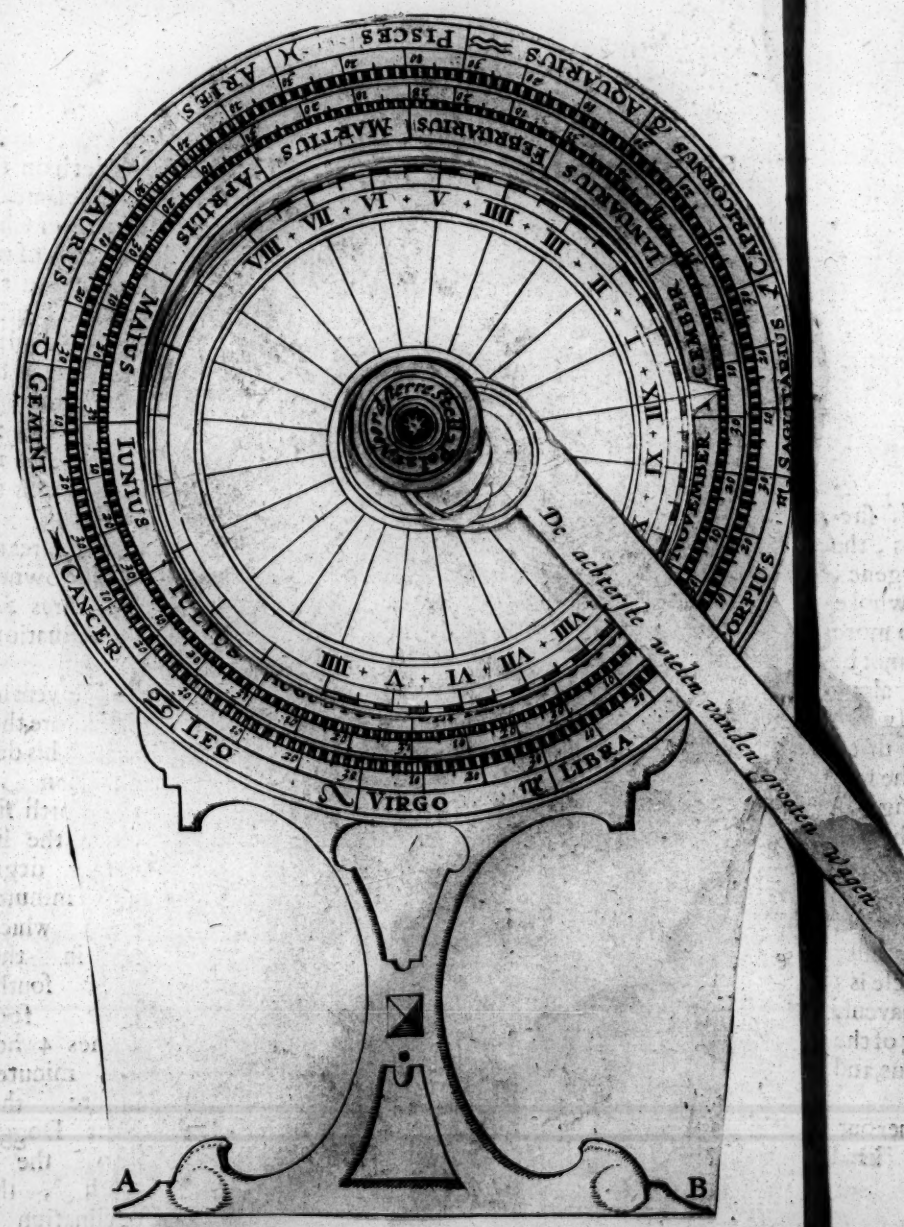
Chaire

brest

Half an houre after followeth the brest named Schedir, the declination is 54 degrees 33 minutes, and thus it standeth from the pole 75 degrees 27 minutes.

Fifteen houres after that followeth the star that standeth in the hippe, in declined 58 degrees 45 minutes. so that it standeth for the pole 31 degr. 15 minutes.

Yet 27 minutes later followeth that which is placed in the knee, hath its declination 58 degrees 18 minutes, it is distant from the pole 31 degrees 42 minutes.



To finde the houre of the day at any hight, will be done moſt reddily and certainely with ſuch a water compas, as is deſcribed in rhe chapter of the ebbing and ſtoting of the ſea; in the night one may finde it by the nightdiall, as this figure aboue deſcribeth, which hath two rondels; the one moueable, the other unmoueable, in the loweſt which is unmoueable are the 12 ggnes of heauen placed as alſo the moneths and dayes of the yeere. On the moueable rondel are the houres, this turnes with the gnomen, whoſe right ſide anſwereth to the middelpoint where there muſt be a naile with a hole; through which a man may ſee. The uſe of this night diall is this: We ſet firſt the foot to the twelf houre on the moueable rondel, and to the day of the yeere, on the undermoſt unmoveable rondel, and ſet the Inſtrument hight, with rhe loweſt corner of the foot A B, ſo that it ſtand water-pas, in ſuch ſort, that a man may ſee the North-Star through the hole of the naile, turneing the diall up and downe, ſo long till the hinder wheeles of the great Wagen come into the diall, which being ſo, the gnomen ſhall ſhew the houre on the moueable rondel. And if in place of the hinder wheeles of the wagon you take the brighteſt of the wachtmen, it will be 4 houres 15 minutes later, as the diall will ſhew, becauſe the wheeles aforeſayd of the great cart goe ſo much before the wayters.

Men may finde the houre by the aſcenſion of the Sunne and the ſtarres in this manner; when we ſee any ſtar in the ſouth, whole juſt aſcenſion is knowne, and that we know the true aſcenſion that day, then draw the aſcenſion of the Sunne from the aſcenſion of the ſtar, the remainder we devide into houres by 15, (for 15 degrees make 1 houre) and this will the the right houre of the time, but if the aſcenſion of the Sunne be more then the ſtars, in that cauſe you ſhall add 360 degrees to the aſcenſion of the ſtar, and then do as aforeſayd.

I. Example.

On the 10 of Aprill, in the evening, in the ſouth J ſee the hart of the Lyon, whoſe right aſcenſion is 14 degrees, the aſcenſion of the Sunne on that day is 19 degrees, take thoſe from the aſcenſion of the ſtar, there remaines 128 degrees, and theſe devided by 15, I finde 8 houres 8 degrees ouer plus, and for as much as 15 degrees make one houre, every degree wil make 4 minutes, the 8 degrees ouer plus, make 32 minutes of an houre, it wil be than at that time 8 houres 32 minutes from the noonetide.

II Example.

On the 5 of November in the night J finde in the ſouth the ſtar Aldebaran, the ſouth eye of the Bull, whoſe right aſcenſion is 64 degrees: the Sunnes right aſcenſion on that day 220 degrees, which is more then that of Aldebaran, therefore J add to the aſcenſion of the ſtar 360 degrees, it makes 424 degrees, the Sunnes right aſcenſion being taken from this, there remaines 204 degrees, which difference betweene the aſcenſion of the Sunne & the ſtarr aforeſayd, which being devided by 15 you ſhall finde 13 houres 8 deg. which make 36 minutes, it is then 13 houres 36 minutes from the noonetide, that is 1 houre 36 minutes after midnight.

How to finde the accenſion on any day in the yeere, of the Sunne and the ſtarrs, we haue here adioyneth two tables, the one of the *Sunne*, ſhowing from fiue dayes, to 5 dayes the *Sunnes* aſcenſion, out of which you may eaſily finde the ſame in other dayes. The other for thirtie the primeſt fixed ſtarres, both of them onely by degrees, that being ſufficient for this buſineſſe.

Chap. IX.

A table of the right aſcenſion of the Sunne.

The firſt unmber in the table ſheweth the day of the Moneth, the ſecond of degrees of the aſcenſion of the Sunne on that day.

da	gra,	da,	gra.	da,	gra,	da.	gra,	da,	gra	da,	gra.
5	287	5	319	5	346	5	14	5	42	5	73
10	292	10	324	10	351	10	19	10	47	10	78
15	297	15	329	15	355	15	24	15	52	15	83
20	303	20	334	20	360	20	28	20	57	20	88
25	308	25	339	25	4	25	33	25	62	25	94
31	314	28	342	31	10	30	38	31	68	31	99

Iulie.		Augu.		Septem		Octob.		Novem		Decem	
da,	gra,	da	gra,	da,	gra,	da,	gra,	da,	gra,	da,	gra.
5	104	5	135	5	164	5	191	5	220	5	251
10	109	10	140	10	168	10	195	10	225	10	257
15	114	15	145	15	173	15	200	15	231	15	263
20	119	20	149	20	177	20	205	20	236	20	268
25	124	25	154	25	182	25	210	25	241	25	274
31	130	31	159	30	187	31	215	30	246	31	2

A Table of the right aſcenſion of the primeſt ſtarres.

The girdle of Andromeda.	1 degrees,
The cleareſt in the head of the Ram.	27 degrees.
Menkar the brighteſt in the mouth of the Whale.	41 degrees.
Aldebaran, the ſouth eye of the Bull.	64 degrees.
Capella in the left ſhoulder of Erichtonius	72 degrees.
Regel the left foot of Orion	74 degrees,
The ſtar in the left ſhoulder of Orion.	84 degrees.
Syrius the great dogge.	97 degrees.
The north head of Gemini.	180 degrees.
The ſouth head of Gemini	111 degrees.
Procyon the little dogge	110 degrees.
The brighteſt in the waterſnake, Gor Hydræ.	137 degrees.
Regulus the Hart of the Lyon.	147 degrees.
The taile of the Lyon.	172 degrees.
Vendemiatrix the right wing of Virgo	191 degrees.
Spica virginis the eare of corne	196 degrees.
Arcturus the brighteſt in Bootes	210 degrees.
Arcturus the brighteſt in Bootes	218 degrees.
The ſouth Waight.	210 degrees.
The north Waight.	224 degrees.
The brighteſt in the north Crowne.	230 degrees.
Antares, the Hart of the Schorpion	242 degrees.
The head of Hercules.	254 degrees.
The head of Serpentarius	259 degrees.
The tayle of the Eagle	282 degrees.
Vultur the cleareſt in the Eagle.	293 degr.
The ſtar in the mouth of the horſe Pegaſus.	321 degr.
Formohant the brighteſt in the end of Aquarius	339 degr.
Marcab the ſack or foot of Pegaſus.	342 degr.
The uttermoſt in the wing of Pegaſus.	358 degr.
The moſt northerly in the Whales taile.	360 degr.

A table of the declination of the cheſe of the fixed ſtarres, with their diſtance from the Pole, in the yeare 1635 & 1645.

Theſe ſtarres following are all of them placed in the ſouth ſide of the Equinoctiael Line, and have ſoutherly declination.

	Anno 1635.				Anno 1645.			
	Southerly declination.		The diſt frō the Pole.		Southerly declination.		The diſt frō the Pole.	
	gr.	mi.	gr.	mi.	gr.	mi.	gr.	mi.
	10	50	79	19	10	46	79	14
The northermoſt in the whales taile.	20	1	68	59	19	57	70	3
The ſouthermoſt in the whales taile.	8	40	81	29	8	39	81	21
Regel, the left foot of Orion.								
The firſt of the three in the girdle of Orion, or the three Kings.	0	36	89	24	0	26	89	24
The ſecond in the girdle, or 3 Kings.	1	27	88	3	1	37	88	33
The third.	2	10	87	30	2	10	87	50
The great Dogge, Syrius.	16	12	73	48	16	13	73	47
The hart of the waterſnake.	6	5	82	5	7	8	82	52
Spica Virginis, or the corneare.	9	12	80	48	9	15	80	45
The ſouth balance.	14	28	75	32	14	30	75	30
The north Balance.	7	58	82	2	8	1	81	59
The northermoſt and firſt it the left hand of the ſnakeberer Ophiuchus	2	44	87	19	2	46	87	14
The left knee of Ophiuchus.	6	44	80	16	9	46	80	14
The right knee of the ſnakeberer.	15	11	74	49	15	12	74	48
Antares the hart of the Scorpion.	25	30	64	28	25	33	74	27
The northermoſt of the 2 in the hornes of Capricorne.	13	34	76	26	13	33	76	27
The ſouthermoſt of the two.	15	51	74	9	15	50	74	10
The former or moſt weſterly, of the 2 ſtarres in the taile of Capricorne.	18	10	71	48	18	10	71	50
The ſecond moſt eaſterly.	17	41	72	19	17	39	72	21
The left ſhoulder of Aquarius.	7	6	82	54	7	4	82	56
The right ſhoulder of Aquarius.	2	3	87	57	2	0	88	0
The uttermoſt of aquarius named Famahaad.								
	3	128	58	32	32	25	58	35

	Anno 1635.				Anno 1645.			
	Northerly declination.		Distance from the n. P		Northerly declination.		Distance fr ō the n. P	
	gr.	mi.	gr.	mi.	gr.	mi.	gr.	mi.
Alrucuba the north ſtarre.	87	21	2	39	78	25	2	35
The middlemoſt or brighteſt of the Watchmen.	75	43	14	17	75	40	14	20
The breſt of Caſſiopeia.	43	33	35	27	54	37	35	23
The knee of Caſſiopeia.	58	45	31	15	58	49	31	11
The hippe of Caſſiopeia.	58	18	31	42	58	22	31	8
The knee of Caſſiopeia.	57	9	32	51	57	13	32	47
The brighteſt in the cleare of Caſſiio	27	5	62	55	27	9	62	51
The head of Andromeda.	33	43	50	17	33	47	56	13
The girdle of Andromeda.	40	33	49	27	40	36	29	24
The moſt ſoutherly foot of Androm	21	43	68	17	21	46	68	14
The brighteſt in the head of the Ram.	2	37	87	23	2	40	87	20
The brighteſt in the mouth of the Whale.	39	30	50	30	39	33	50	27
The brighteſt in the head of Meduſa	48	29	41	31	48	31	41	29
The brighteſt in the ſide of Perſeus.	15	46	74	14	15	48	74	12
Aldebaran the ſouth eye of the Bul.	28	15	61	5	28	16	61	44
The ſouth horne of the Bull.	20	53	69	7	20	54	69	6
The left ſhoulder of the gyant Orion	5	58	84	2	5	59	84	1
The right ſhoulder of Orion.	7	17	82	43	7	18	82	42
Hircus or Capella in the left ſhoulder of the carter Erichtonius.	45	34	44	26	45	35	44	25
The right ſhoulder of Erichtonius.	44	51	45	9	44	52	45	8
The brighteſt in the foot of the twinnes	16	40	73	20	16	40	73	20
The head of the northermoſt twinne Caſtor.	32	37	57	23	32	36	57	24
The head of the ſouthermoſt twinne Pallux	28	51	61	9	29	50	61	10
Procyon the little dogge.	6	8	83	52	6	7	83	53
Regulus, Baſiliſcus the hart of the Lyō the middlemoſt and cleareſt in the neck of the Lyon.	13	43	76	17	13	40	79	20
The brighteſt in the back of the Lyon	21	40	6	20	21	37	6	23
The taile of the Lyon.	22	33	67	27	22	28	6	32
The northermoſt hinderwheele of the great Wagon	16	36	73	24	16	33	6	70
The ſouthermoſt hinder whele of the great wagon	63	43	26	17	63	40	26	20
The northmoſt forewhele of the wagon.	58	20	31	40	58	17	31	43
The ſouther forewheel of the wagon	59	4	30	56	59	0	31	0
The neereſt Horſe to the wagon.	55	5	34	15	55	41	34	19
The middlemoſt Horſe.	57	59	32	1	57	56	32	4
The ſouthermoſt Horſe.	56	52	33	8	56	49	33	11
Vindemiatrith the north wing of Virgo	51	11	38	49	51	8	38	52
The Girdle of the Virgin.	12	57	77	3	12	54	77	6
The left ſhoulder of Bootes.	5	26	84	34	5	22	84	38
The bright ſtar betwixt the thighes of Bootes Arcturus.	39	53	50	7	39	50	50	10
The brighteſt in the north Crowne.	21	9	68	52	21	5	68	55
The brighteſt in the neck of the Serpent Opiuchus.	27	59	62	1	27	57	62	3
The head of Hercules.	7	39	82	21	7	37	82	32
The head of the Serpentbearer.	14	52	75	8	14	51	75	9
The brighteſt in the Dragons head.	12	53	77	7	12	52	77	8
Lyra.	51	37	38	23	51	37	48	23
The taile of the Eagle.	38	29	51	31	38	30	51	30
vultur the middlemoſt and brighteſt in the Eagle.	13	23	76	37	13	23	76	37
the breſt of the Swanne.	7	58	82	2	8	0	82	0
the taile of the Swanne.	39	7	51	53	39	9	50	51
the Girdle of Cephus.	44	1	45	59	44	3	45	57
That in the mouth of Pegaſus.	68	58	21	2	69	1	20	59
Sheat the brighteſt in the legge of Pegaſus.	8	13	78	47	1	16	81	44
Marcab the foot of Pegaſus.	26	7	63	53	26	10	13	50
The uttermoſt in the wing of Pegaſus	13	16	75	44	13	19	76	41
	13	9	76	51	13	13	76	47

rence of the time.

Example.

I deſire to know the declination of the taile of the Lyon in the yeere 1640. I find in the table of the yeere 1645. 16 gr. 33 m. and for the yeere 1635. 16 gr. 36 mi. the minutes having as much taken from them as the yeeres, J finde 16 34 minutes and an halfe, leſſening declination.

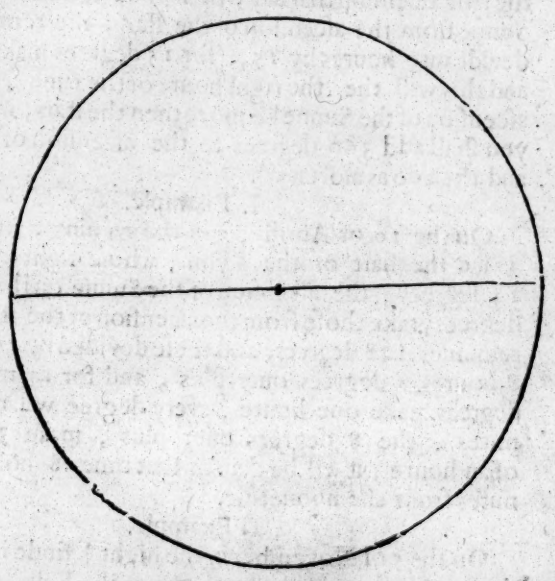
II. Example.

I deſire to know the declination of Aldebaran the eye of the Bull in the yeere 1640, I finde in the yeere 1675, 15 gr. 96 min. and for the yeere 1645. 15 degrees 48 min. the minutes haveing as much taken from them in proportiō as the yeeres J, finde 15 gr. 47 mi. increaſeing declination.

CHAP. IX.

Of the Horizon, or the Circle that boundeth the ſight.

WHere the heavens and the earth or the waters ſeeme in our ſight to meete to gether, that is called the Horizon, or the Circle bounding the ſight, becauſe our ſight endeth there, & can go no further by our nederland Seafarers, it is alſo called the Kimmen. This circle devideth the heavens iuſt in two even parts, ſo that juſt the one halfe is ſeene by us here aboue, & the other halfe can not be ſeene by us, becauſe it is hidden underneath us, which happeneth



iuthis manner. The Earth, (as in the firſt Chapter is] ſhewed) ſtandeth as a center in the middle of the heavens, the which by reaſon of the unmeaſurable quantitie or largenes thereof, is ſo farre ſeparated from the earth, that the whole thickneſſe of the Earth in reſpect of the heavens, is no more then a poynt or prick, or at leaſt ſo little that it cannot be perceived by our ſight and that which by our ſight, along upon the Earth or the Water we can comprehend, (which can not reach further then about three Dutch miles that is 10 Engliſh myles) ſeemeth in our eyes by reaſon of the ſpace is ſo little, to be no other then an halfe globe falling perpendicular upon a plaine, ſo that our ſight falleth in the heaven, as if we ſtood in the middle point of the world, & ſawe right compaſſe wiſe, whereby it falleth out, that juſt the halfe of the Heauen is ſeene by us, and the other halfe is not ſeene by us, in like manner as if a man ſhould lay a line ouer the center of a circle, then the one halfe of the circle is aboue, and the other halfe is juſt under. All the heavenly lights, as the ſunne, moone, & ſtarres (by the turning of the heauens) comming aboue the Horizon, are ſeene by us, and going gowne under it, goe out our ſight.

The Zenith is the point of the heavens directly ouer our head

also called the pole of the Horizon.

An Explication.

The eye being elevated above the water.	The visible Horizon is lower then the true.
foote.	minutes.
2	1
4	2
8	3
14	4
20	5
27	6
37	7
39	8
53	9
66	10
82	11
100	12
140	13
163	14
186	15

The Horizon is to bee considered in a two-fold manner: according to the true and the visible, the true goeth every way right waterpasse from our sight that it passeth through the Center of the sphere, as is sayd, deviding it into equall parts, is every way from the Zenith 90 degrees the just foure parts of a circle.

The Visible is the uttermost part of the Earth or Water, that our eye can reach or see, when our eye is just on the flatte or surfare of the even Water, then the true and Visible Horizon are one and the same, but our eye lifted up above the surface of the Water, the sight falleth (over the Globe of the earth) every where lower then waterpasse, and thence it followeth that the visible Horizon is lower than the true, although this bee not much materiall in the Art of Navigation, for as much as it is recompenced by the refraction of the visible Horizon, We have added this table, for those that desire to bee exact, where men may see how much the visible differs from the true that being changed or altered by feet.

Example.

The sight being elevated above the surface of the waters 14 feet, in the 1 columne, in the 2 columne over against it, you find 4 min. which the visible Horizon is lower then the true. The sight being lifted 140 feet about the Horizon, the visible will be 13 min. lower then the true.

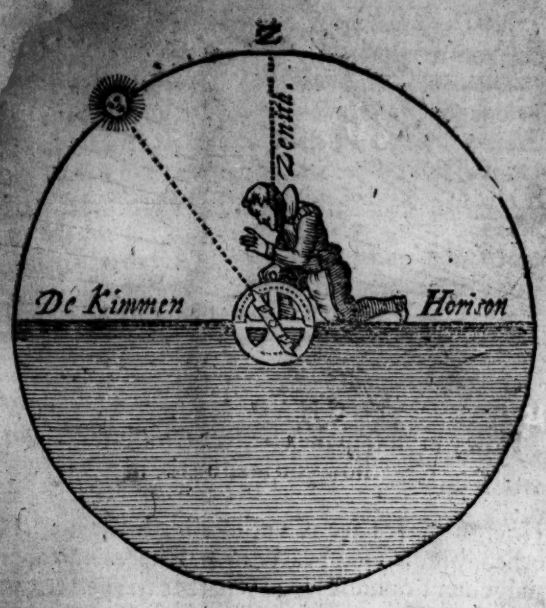
CHAP. X.
Of the Meridian or Middle circle.

THe Meridian is a Circle in the Heavens, which we must conceive to passe through both the Poles of the world, right over our heads, and crosse wise through the Equinoctiall, and to cut right through the Horizon north and south. The *Sun* touching this circle is at the highest, and then it is just noone, or the middle time of the day, and likewise the stars when they come upon this circle, they are like the Sun) at the highest of the Horizon, and right s. and as soone as they have past it they begin to goe downeward againe.

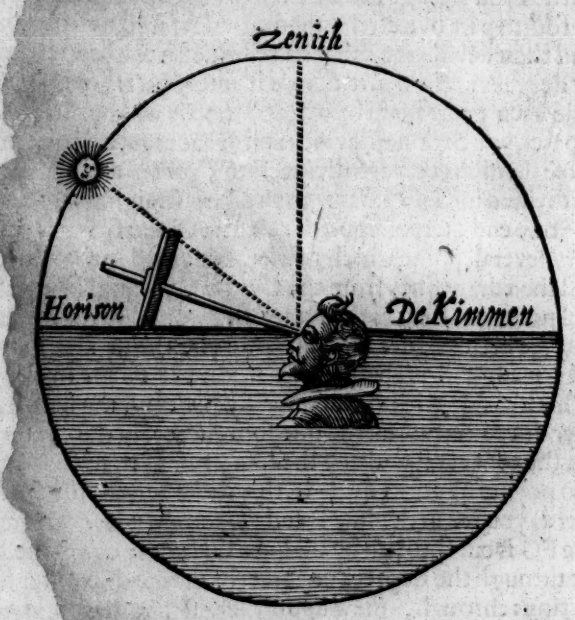
CHAP. XI.
Of the height of the Sunne or Stars, and what it is.

THe height of the Sunne or stars is nothing else but the distance or space, that is between the Horizon and the *Sun* or starr it selfe: which to understand perfectly, you must make, that we suppose a poynt or prick to be right above our heads in the Heavens, that is equally distant from the Horizon in all places, which point is caled the Zenith, or the head point: now seeing that the whole circuit of the heavens containeth 360 degr. and that the just halfe thereof is seen above the Horizon, it is certaine that this point called the Zenith in all places is above the Horizon 90 degr. whether you turn e. w. n. or s. or any other way: now when the Sun riseth above the Horizon, and ascendeth higher and higher from it, and commeth toward this poynt or Zenith: we say that as many degr. as it is ascended, from the Horizon towards th'aforesaid point or Zenith, that the same is the height thereof, as by example, when he is risen halfe up from the Horizon towards the Zenith, then he is 45 degr. and if he be risen a third part from the Horizon then he is 30 degr. high, and so forth, the like is also to be understood of the height of the stars.

CHAP. XII.
How to measure or find the height of the Sun or of the starres.

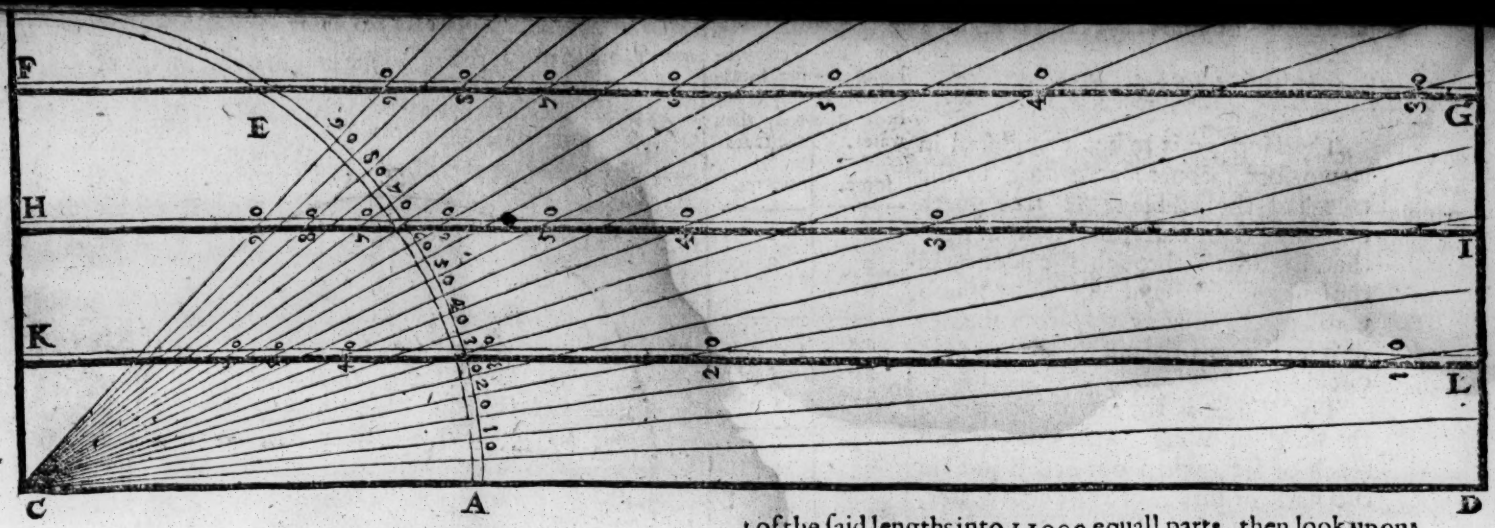


TO find the height the Mathematicians have devised divers fit Instruments, whereof there are two that are most used at sea, which are the Astrolabium, and the common Crosse-staffe, the use of the Astrolabium is plaine and well known unto all men: for holding the instrument by the ring, let the Sun shine through the holes of the eares, then the uttermost part of the Diall (counting from below upwards) sheweth how many degrees the Sun is risen above the Horizon: as the former figure plainly sheweth.



The Crosse-staffe is used thus, you must place the end of the Staffe underneath the eye, then you must remove the Crosse too and fro, untill the upper end of the Crosse stand deth even upon halfe the Sun or Star, and the under end just with the Horizon, and then the Crosse will shew you upon the staffe, how many degrees they are in height, so you account after those numbers whereof ninty stand that the end of the staffe that is next to your eye, the computation going backward from the other end of the staffe: for otherwise if you rekon by those numbers that proceed forward from the end next your eye, then it will shew you how many degrees the Sun or starr standeth from the Zenith, or Head poynt of the Horizon, as you may see by the figure ensuing.

CHAP.



CHAP XVI.

How you muſt make a perfect Croſſe-ſtaffe, and how you ſhall marke it.

THe croſſe ſtaves are oftentimes made the one after the other by imitation, or patterns, and that many times without judgement or knowledge whether the pattern be good or not, whereof notwithſtanding a man ought to bee very certaine, for it is a matter of great importance and therfore I have here ſet downe two ſeverall wayes eaſie to bee underſtood, how to make the ſame exquiſitely and perfectly upon good reaſon and good ground.

Make an even ſmooth board, and paſte good paper upon it, then draw a ſtrait line upon one edge or ſide thereof, as you ſee in this figure a line marked CAD, then marke another line as you ſee it marked BC, that BCA bee a right and juſt halfe ſquare, then take a good paire of Compaſſes, and ſet one foot thereof in the angle marked C, and compas therewith as you ſee BEA, ſo that AEB may be a right quadrant, or fourth part of a circle, then devide it into two parts, to E, and then devide the other halfe (which is AE) into 90 parts, or degrees as thus: firſt devide it into 3 patts, and then devide each 3 part again into 3, and then it will be divided into 9 pasts, which done, devide each of them into two parts, and thoſe diviſions or parts divide into 5 parts, and then it will be divided into 90 parts: then take a ſtraight line: and lay the one end thereof upon the Center C, and ſo forth upon every ſeverall point, which you have devided in the Quadrant and then draw lines from the Center C through all the foreſaid points, as long as the board will containe them, as you may ſee in this figure: which done then your inſtrument is fully made and prepared to marke your ſtaves thereupon. Which to doe, with your compaſſes take juſt the half length of your croſſe, and ſet the one foot thereof in the center, and put the other at F, and doe the like from D right to G, which two poynts or pricks draw with a ſtraight line unto each other as you ſee in the line F and G, and then mark where the line FG is cut through by the lines that come out of the center through the degrees or points of the quadrant: for thoſe cuttings through, ſhew upon the ſaid line the right marking of your Croſſe-ſtaffe: that is, you muſt marke your Staffe juſt as you ſee that theſe lines in F G are marked, by the lines that come out of the center and paſſe through it, whether the Croſſe be long or ſhort, you muſt follow the ſame order that you bee taught in the figure, the Line HI is drawne for a ſhorter croſſe then the former, and KL for one that is ſhorter then that, viz. whole halfe is juſt ſo long as the line CK.

The ſecond manner of Framing your Croſſe-ſtaffe much excelleth the firſt in perfectnes & curioſity, ſo you devide it perfectly with your compaſſe, which is done in this manner. Upon an hard even board which is paſted with paper draw a ſtraight line as long as your ſtaffe is, and with point compaſſe take the juſt halfe of the length of your Croſſe, whereunto you mean to mark your ſtaffe, and prick it as many times along in the ſaid line as you can: and divide each of the ſaid lengths into 11000 equall parts, then look upon the table here after inſuing, which ſhewed you how many of thoſe points or parts you ſhall marke for each degree, and that you muſt doe in manner following, from the end of the ſtaffe, which you will make the eye end pricke juſt the halfe length of the croſſe, and there make a croſſe ſtroke, from whence prick for every degree ſo many of the aforeſaid parts as the table enſuing ſheweth you. As for example, for the firſt degree prick 176 parts, for the ſecond 355 parts, for the third 538 parts, for the fourth 724 parts, and ſo forth: Remembring that you muſt prick all the lengths of prickes or parts aforeſaid, from the aforeſaid croſſe ſtroke, which is marked upon the halfe length of the Croſſe into 11000. parts, then devide the whole croſſe ſo, and then take for every degree halfe ſo many as the table ſheweth unto you. And if you cannot doe ſo, devide halfe the croſſe into a 1000. parts, and then leave the hindermoſt letter of the table out, as where you ſhould for the firſt degree take an 176 parts, take but 17 parts, leaving the laſt figure out: but if your croſſes be ſo ſmall that you can devide the halfe of them into no ſmaller then an hundred parts, then leave out the two laſt figures in the table. But you muſt underſtand that the more parts that you devide the croſſes into, your markes will fall out ſo much the better and perfecter.

de.	parts.	de.	parts	de.	partes.	de.	partes.	de.	partes.
1	176	19	4019	37	10057	55	21716	73	56612
2	355	20	4281	38	10503	56	22708	74	61154
3	538	21	4550	39	10965	57	23759	75	65958
4	724	22	4826	40	11445	58	24874	76	71445
5	913	23	5108	41	11943	59	26059	77	77769
6	1106	24	5399	42	12460	60	27321	78	85144
7	1303	25	5697	43	12998	61	28667	79	93854
8	1504	26	6003	44	13558	62	30108	80	104301
9	1708	27	6318	45	14142	63	31653	81	117062
10	1918	28	6643	46	14751	64	33315	82	133007
11	2131	29	6976	47	15386	65	35107	83	153469
12	2349	30	7320	48	16051	66	37046	84	180811
13	2572	31	7675	49	16746	67	39152	85	219028
14	2799	32	8040	50	17475	68	41445	86	276362
15	3032	33	8418	51	18239	69	43955	87	371885
16	3270	34	8807	52	19042	70	46713	88	561810
17	3514	55	9210	53	19887	71	49758	89	1135891
18	3764	36	9626	54	20777	72	53137	90	Infinit.

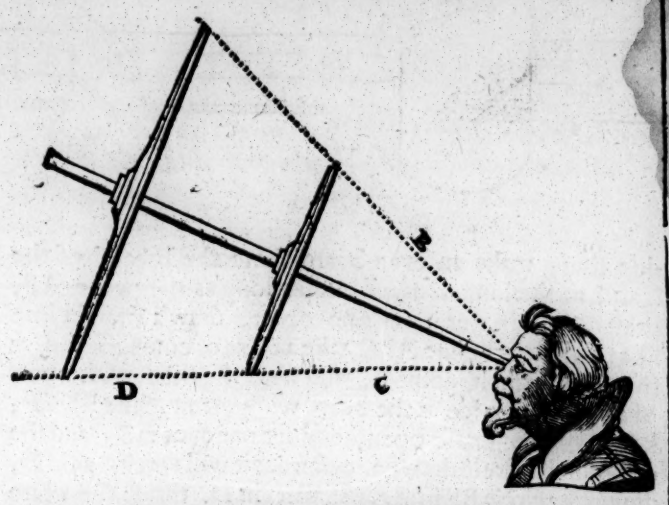
CHAP. XIV.

Of the cutting of the Croſſe-ſtaffe, and how a man may helpe and prevent all the defects of the ſtaffe.

THere being a Croſſe-ſtaffe well and exquiſitely framed, according to the doctrine of the former Chapter: it falleth out that certaine ignorant perſons cutte off a peece from the eye end of the Staffe, about a degree, or a degree and a halfe, or two degrees long, and can give no other reaſon of that their doing but that it muſt be ſo, and that they have experience that it ought ſo to bee. But

que-

right as it ſhould be, the fault therof is not in the croſſe ſtaves uncut, but in themſelves, for that they know not how to uſe the ſtaffe aright, nor underſtand not the true ground thereof. Others that will ſeeme wiſer than the former, give a reaſon thereof: to wit, that the ſtaffe muſt be cut, becauſe of the hollowneſſe of the eye, for that otherwiſe the ſtaffe cannot come to ſtand ſo that the end thereof bee conjoyned to the midle point or center of the ey or ſight, this reaſon hath ſome ſhow of truth, but notwithſtanding is alike untrue and erroneous: for the ſtaffe may very well be ſet, either on the innermoſt or outermoſt corner of the eye, ſo that the ſight of the eye may fall to anſwer juſt to the end of the ſtaffe: that this is truth we will prove with good reaſon as followeth.



Set the great croſſe with the middlemoſt upon like degr. to wit, each upon ſuch as for that purpoſe are marked upon the ſtaffe: then apply the ſtaffe (the croſſes ſo firmely remaining) unto your eye in ſuch manner, whether it bee on the innermoſt or outermoſt corner it is all one) as that you diſcerne the ends of the croſſes both above and beneath, juſt over each other, in forme as this figure ſpecifieth. If then you draw ſtraight lines by the ends of the croſſes AB and DC they ſhall meet juſt in the middle point of your ſight. And inaſmuch as the croſſes are placed upon like degrees, the lines aforeſaid ſhall meet juſt upon the end of the ſtaffe, ſeeing that the end of the ſtaffe repreſenteth the center of the quadrant both juſt upon the end of the ſtaffe, and alſo upon the ſight, ſo that it followeth neceſſarily, and appeareth evidently: that the end of the ſtaffe and the ſight meet in one, or to ſpeake properly, both of them ſtand juſt in the center of the quadrant.

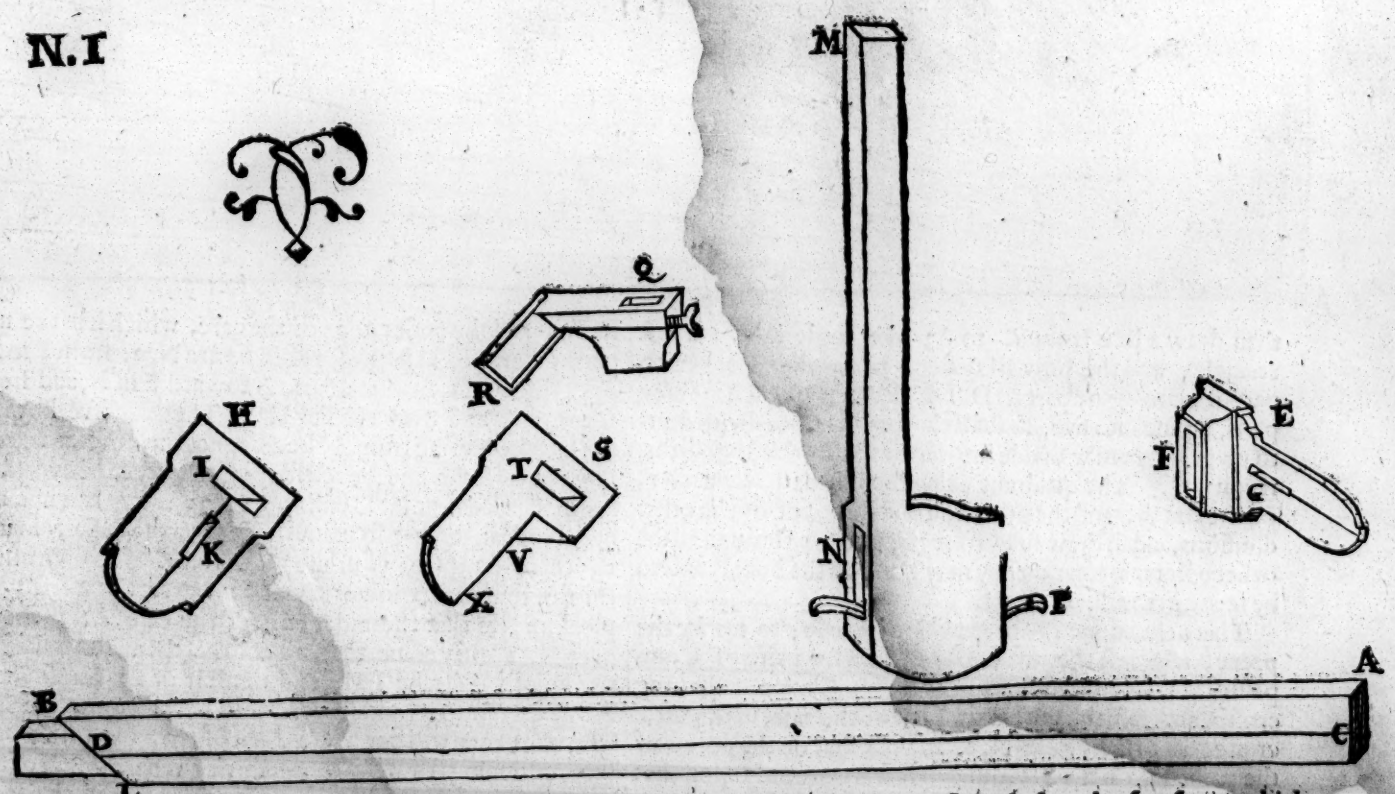
Therefore whenſoever with the croſſe ſtaffe you will take the height of the Sun, or of any ſtar, then obſerve diligently: how many degrees it is elevated above the Horizon: and place the two croſſes upon ſo many degrees: then apply the ſtaffe to your eie in ſuch manner as that you may ſee the ends of the croſſes juſt over each other, according as is taught before: in ſuch forme then as you finde the ſtaffe to ſtand to your eye ſhall you place the ſtaffe (taking away one of the croſſes) when you deſire to meaſure acording to ſuch height: this is a ſure rule which will never faile, neither can you poſſible miſſe if you follow it.

CHAP. XV.

How to finde the height of the Sun by the ſhadow.

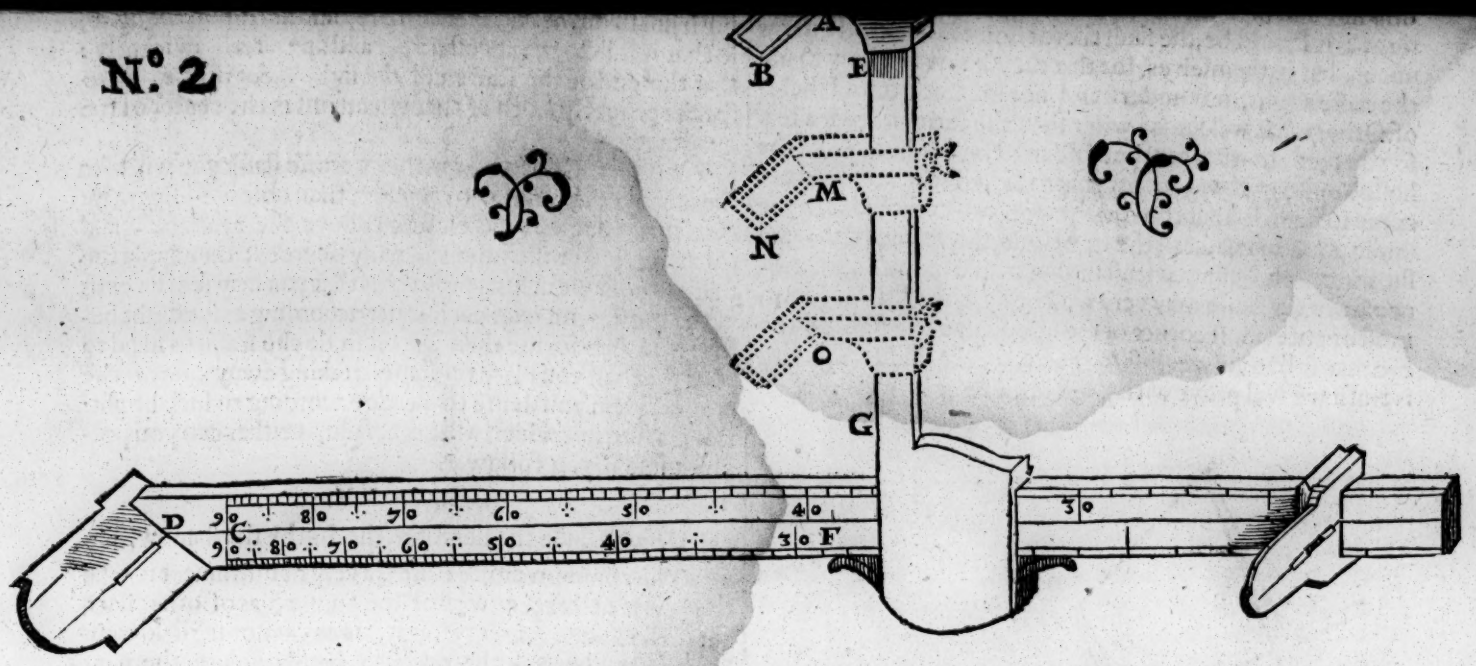
The common croſſe ſtaffe is a very fit inſtrument to take the height at Sea, as well of the Sunne, as of other ſtars, but if the Sunne bee very high, wee cannot uſe it ſo commodiouſly; becauſe the eye can hardly indure the heat and brightneſſe of it. To avoyd this wee may very conveniently take the height of the Sunne by the ſhaddow, in this manner: make a peece or ſtaffe 3. or foure feet long, very ſmooth, halfe a thumme thicke, broad two or three thummes, that it may remaine ſtraight, as you ſee in AB in the midſt of the broad ſide (juſt at the halfe betweene the upper and nether edge line, draw aright) CD, make a peece like E with a hole F, that it may be put into the peece AB, and thruſt it too and fro, alſo thwart over let there be a ſmall hole for the eye like G, in ſuch ſort that when this ſliding peece is fitted to the other, the hole for the eye, may come to ſtand juſt by the middeſt of the line of the peece CD, neither higher nor lower. Make another peece like H, and in the middeſt of the ſame alſo a hole for the eye like K, and an hole thwart like I, that ſo it may be put on the end of the ſtaffe at B, in ſuch manner that it ſtand not right, but thwart or corner wiſe, as the line BDL ſheweth, and that the hole K, may ſtand like the other eye-hole G, one the peece E) neither higher nor lower then the line CD, juſt by the point D, or elſe you may in place of that eye hole, cut off the Croſſe of the lower edge to the line where the eye-hole

N.I

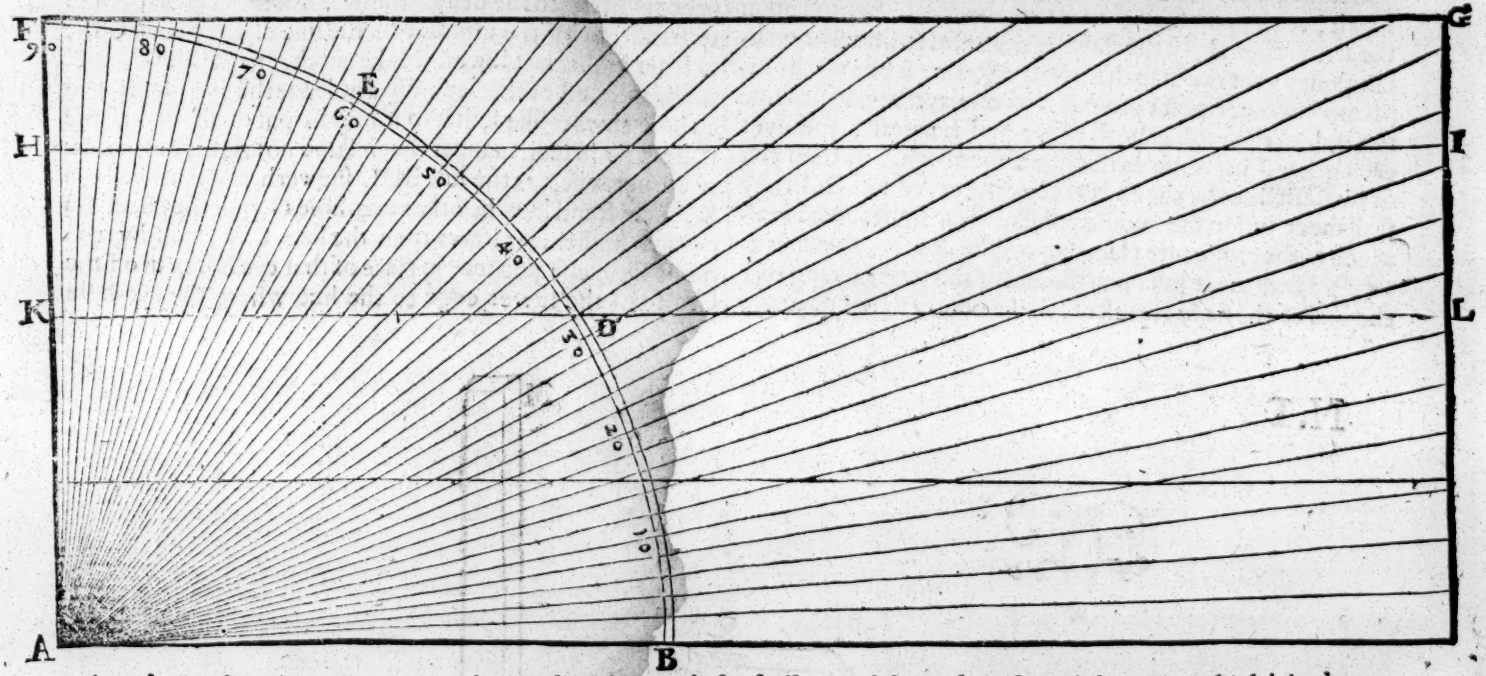


ſtandeth, (as you may ſee in the Croſſe S) at the line XV. make another croſſe, a foot and a halfe or two foot long, in the forme of MN, with a hole at N, through which it being put into the foreſaid peece, that ſo you may ſlide it, too and againe, and that it may goe ſoftly and certaine on it, then make in the lower part of the hole a braſen ſcrue which may bee thruſt under againſt the peece and ſhuft it cloſe to OP. Laſt of all, make a ſmall croſſe as Q, with an hole that it may bee ſet on the long croſſe MN, and faſten it behinde with a ſcrue ſo high or low as uſe requireth, in the end toward

N°. 2



toward the fore part make a flat eare, an inch, or an inch and a halfe broad like RS, neither right nor flat but thwartwiſe or cornerwiſe, ſo that when all theſe parts are joyned together as they ought, the flat of that eare, and that thwart flat of the ſliding-peece H, may alway remaine at like diſtance, that is, that they make equall angles, or that they both may ſtand the one and the other out of the ſquare againſt the peece AB, the parts thus prepared, and joyned to each other, the forme of this inſtrumedt will be like the figure which is marked N. 2. now to marke this ſtaffe fit for uſe doe thus; make an even board about the breadth of the length of the long croſſe, and as long as the peece AB, paeſt on good paper, in the one corner, draw a ſtraight line like this figure the line ABC, take a paire of compaſſe and ſet the one foot in the point A, and with the other make part of a circle, as wide as the board will permit, like BDEF; keepe the compaſſe open, and ſet one foot in B, and the other in the circle drawne, as farre as it will reach, as in E, divide the circle BE into equall parts in D, thruſt the white BD, or DE, from E, forward along the circle to F, then



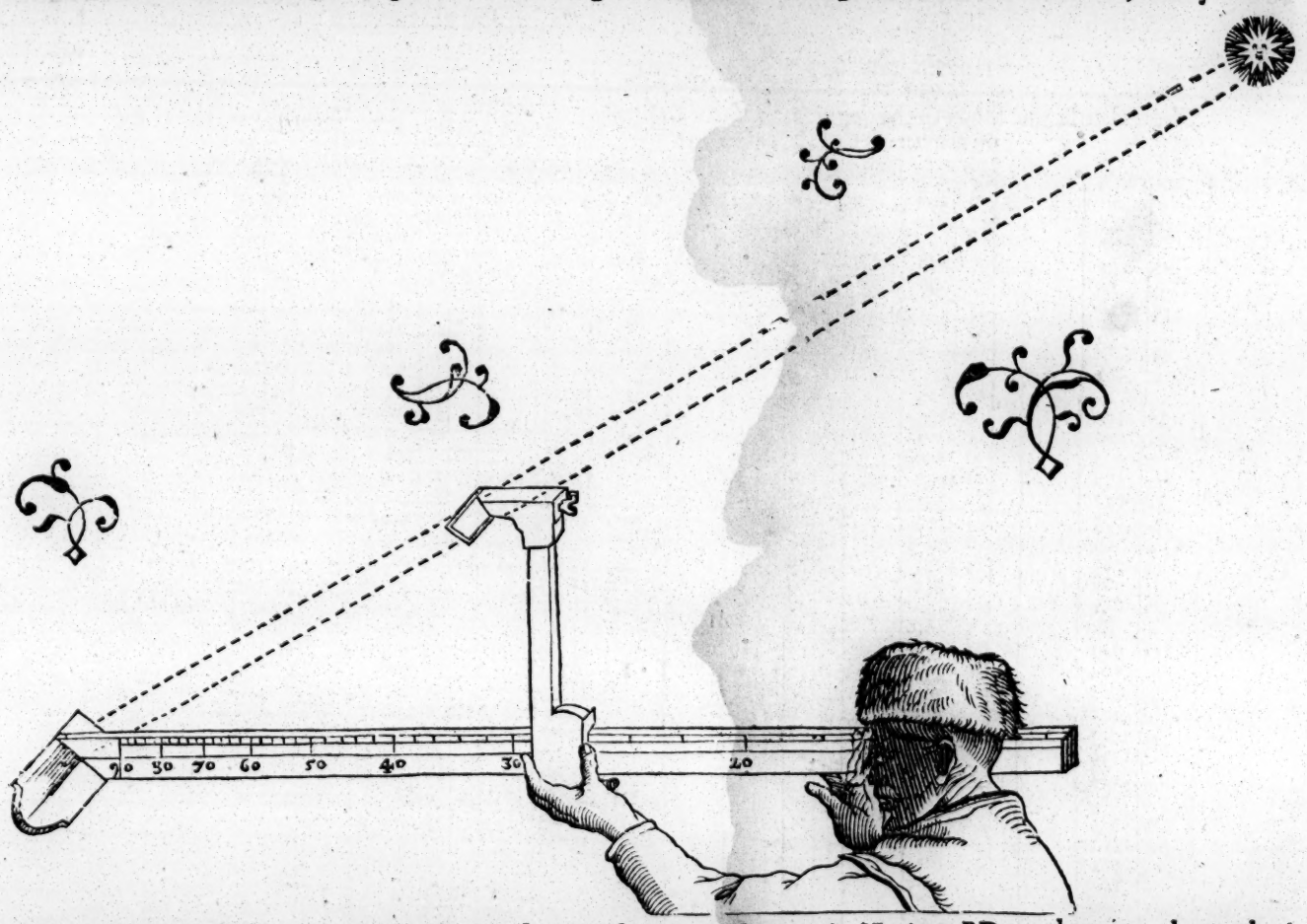
then draw a line from F, to A, the angle FAB is a juſt triangle, and the bow BDEF is a juſt quadrant or fourth part of a circle, the parts BD, DE, EF, divide each in three parts, againe into five, ſo ſhall the quadrant bee divided into 90 gr. You may divide into leſſe as halfe, thirds, fourths, if you will. The quadrant being thus divided, lay a ruler, on the end A, and the other end on the poynt of the other diviſions, and ſo draw lines from the point A, through all the other points, as long as they may ſtand on the board, as is to be ſeene in the figure above.

That being done the preparation is made; to matke the peece, take firſt the juſt wideneſſe with a paire of Compaſſe that is betweene EG, the foremoſt edge of the long croſſe, and AB the outermoſt edge of the eare, in the little croſſe, as in the figure N. 2. and put that on the peece of the point D, on the left roundell inward toward C, on that poynt draw a thwart line, from thence you ſhall begin to marke, that the wideneſſe betweene the midule line of the ſtaffe, and the under edge of the eare, which is in the uppermoſt croſſe, as in the foreſaid figure N. 2. from F to A, prick that on the quadrant from A toward F in H, and from C to G in I, and draw the line HI. Then obſerve how all the lines comming from A the center of the quadrant, cutting through this line, even ſo muſt the peece bee marked beginning at the point C with 90, 80, 70, &c. But if ſo doing, you cannot get ſo many degrees on the ſtaffe, as you deſire to have (for your uſe) then ſet the little Croſſe a third or fourth part lower toward the great Croſſe at your pleaſure, ſo that the under edge of the eare AB in the figure N. 2. may come to ſtand at MN, then in the place of the length FA take FM, and thruſt it in the quadrant of A toward F into K, and from C unto L, and draw the line KL, that then will bee marked as it ought, by cutting the lines, comming from the center through the deviſion of the quadrant, but you muſt take a certaine marke in the long Croſſe, for to ſet the little Croſſe in ſuch manner as you would

markes on the lame peece, you muſt ſtere that little croſſe more netherward and then doe as was ſaid before, but you may not forget to make certaine markes in the long croſſe; for to ſet the little croſſe well according to the marking, which you deſire to uſe.

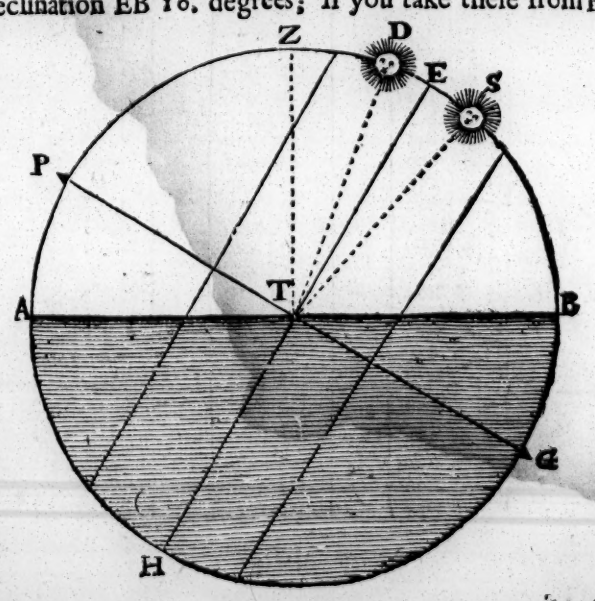
To marke this croſſe ſtaffe from tables more perfectly, draw on an even board paſted with paper aright or ſtraight line, as long or longer then the ſtaffe that you deſire to marke. You ſhall with the compaſſe take the wideneſſe of the ſtaffe, between the middle line, and the nethermoſt edge of the eare at the little croſſe, as it is in the figure N. 2. FA or FM, or alſo FO, what marking ſoever you deſire to follow ſet that wideneſſe taken as often alongſt that foreſaid line as you can, and each of theſe lengths you ſhall divide in 10000 parts, this table in this place ſhewes how many of theſe parts you ſhall apoynt for a degree, or a fourth part of a degree, beginning, as is the figure aforeſaid N. 2. from the poynt C. The firſt Columne of the table ſheweth the degrees, the ſecond the minutes, the third the parts, which you muſt take for the degrees, and minutes, for the firſt halfe degree or 30. min. 87. for a degree, 175. for 2 deg. 15 parts, then you may divide it into halfe ſo many parts, and ſo you ſhall take ſo many parts for a degree, or part of a degree, if you cannot doe that, you ſhall devide it into 1000. parts, at every time. leaving out one letter in the table, as when you ſhould take for the firſt degree 175. take 17. and as neare as you can one halfe, for the 8. degrees in the place of 1405, take 140. and ſo forward.

Laſtly, draw two parrallel lines, on the leaſt roundell ſtanding on the outermoſt end of the ſtaffe, which may be perfectly ſeene, whereof the one muſt goe through the midſt of the eyhole as OP, the other ſo much higher that the breadth of the eare at the little roundell QR of you make a good breadth betweene theſe two lines of like wideneſſe, it will be ſo much the more ſerviceable for uſe; this croſſe ſtaff being thus completely made. Th'uſe of it to take the height is this: you ſhall ſet it with the back toward the Sunne (as you ſee in this figure here beneath) and looke through the ſight of the moveable ronpeece, then ſhall you likewiſe ſee the Horizon through the eyhole of the leaſt unmoveable peece, and keepe that as ſtraight as you can, but if you uſe a croſſe as in the figure N 1. is marked with S, then you ſhall



hold the lower edge VX, right on the Horizon, as you doe in the common croſſe ſtaffe. Then you ſhall ſlide with your hand the long croſſe to and fro upon the ſtaffe, untill the ſhadow of the eare at the uppermoſt little croſſe fall in to the open field, on the leaſt unmoveable thin peece on the end of the ſtaffe, juſt between the two parrallel lines above the ſight hole, to wit in ſuch manner; that you may at once ſee the Horizon through both the ſight holes, and the ſhaddow of the above-ſaid eare even above the two foreſayd parrallel lines that being once obtained, the great croſſe will ſtand juſt by the degree of the true height of the Sunne, to wit, according to ſuch marking as the uppermoſt little croſſe (being high or low) is ſet.

Having found the height of the Sunne, if the declination be northerly, you ſhall ſubſtract it from the height found, that is to ſay, if you are in the north ſide of the Sunne, that is if the Sunne be ſoutherly, but if the declination be ſoutherly, then you adde it to the height found, and ſo you ſhall finde the height of the Equinoctiall, which being taken from 90. you ſhall finde the height of the Pole, as by example: Let the Sunne, as in the figure here by ſtanding, be elevated above the Horizon BD 70. degrees, the northerly declination EB 10. degrees; If you take theſe from BD



70. de-

quinoctiall, this being taken from BZ, or EG 90, there remaines EZ, or BG thirty, just at PA the corner of the Pole.

But if you marke this staffe with the number inverted, so that in the place of 90. you set 0. for 80. 10. for 70. 20. and so forth, as the common crosse staffe is marked ordinarily, which you use toward the Sunne, you must then on the contrary and the northerly declination, and substract the southerly, and so at the first without further marking, you have the height as it is in the figure, if as in that which went before you to the height of the Sun being elevated at D 70. gr. you shall in place 70 finde on the staffe 20 that is not the height of the Sun from the Horizon BD, but the fulfilling of the height to 90. degrees as DZ, that is the distance of the Sun and Zenith, if then you joine to it the northerly declination DE 10 gr. that makes together EZ 30 degrees, the distance of the Equinoctiall and the Zenith, and just at PA the elevation of the Pole. In the same manner if the Sun hath southerly declination, and is risen from the Horizon 50 gr. as in S. you shal not find on the staffe 50 gr. for BS, but 40 gr. for SZ the distance of the Sunne and the Zenith. Then if you take SE the southerly declination from SZ 40 there remains EZ 30 degrees, for the distance of the Equinoctiall and the Zenith just at PA the height of the Pole.

it is done for 2 causes; first that you may slide it netherward or outward as these and sliding of the great crosse requireth, secondly, that in foule weather when the waves goe high, you may set it inward (as occasion shall require) for your better measuring, for where the waves are high and troublesom long instruments, are not so fit for use as short. This foresaid crosse staffe is very fit, to take the height certainely on the firm land, without the use of the Horizon. That you may do this, you shal lay the staffe on a table or any other flat place in a right line with the water the eye end directly to the south, and with the other end, where the thwart sliding peece standeth to the north, on two smooth peeces of wood, so much lifted up that you may slide the long crosse too and againe without hinderance, then when the Sunne comes directly south, (that is, when the Sunne hath equall shadow on each side of the staffe, then shall you slide the long crosse too and fro, so long untill the shadow of the eare at the little crosse fall just betweene the two parrallel lines on the thwart crosse; that being done, you shall finde the height of the Sun in the staffe at the long crosse, which being found, you shall by that know the height of the Pole or the distance of the place where you take the height according to the instructions before laid downe.

Here followeth the Table by which you must marke the foresaid crosse staffe.

The first columne sheweth the degrees, the second the minutes, which are above the degrees, the third the number of prickes, points, or parts belonging to such degrees and minutes.

gr	mi	parts.
0	0	0
	15	43
	30	87
	45	131
1	0	157
	15	218
	30	262
	45	306
2	0	349
	15	393
	30	437
	45	480
3	0	524
	15	568
	30	612
	45	655
4	0	699
	15	743
	03	787
	45	831
5	0	875
	15	919
	30	963
	45	1007
6	0	1051
	15	1095
	30	1139
	45	1184
7	0	1228
	15	1272
	30	1317
	45	1361
8	0	1405
	15	1450
	30	1495
	45	1539
9	0	1584
	15	1629
	30	1673
	45	1718
10	0	1763
	15	1808
	30	1853
	45	1899
11	0	1984
	15	1989
	30	2034
	45	2080
12	0	2126
	15	2171
	30	2217
	45	2263
13	0	2309
	15	2355
	30	2401
	45	2447
14	0	2493
	15	2540
	30	2506
	45	2633

gr	mi	parts.
15	0	2680
	15	2726
	30	2773
	45	2820
16	0	2867
	15	2915
	30	2962
	45	3010
17	0	3057
	15	3105
	30	3153
	45	3101
18	0	3250
	15	3297
	30	3346
	45	3394
19	0	3443
	15	3492
	30	3541
	45	3590
20	0	3640
	15	3689
	30	3739
	45	3789
21	0	3839
	15	3889
	30	3939
	45	3990
22	0	4040
	15	4091
	30	4142
	45	4193
23	0	4245
	15	4296
	30	4348
	45	4400
24	0	4452
	15	4505
	30	4557
	45	4620
25	0	4663
	15	4716
	30	4770
	45	4923
26	0	4877
	15	4931
	30	4986
	45	5040
27	0	4095
	15	5150
	30	5206
	45	5261
28	0	5317
	15	5373
	30	5429
	45	5486
29	0	5543
	15	5600
	30	5657
	45	5715

gr	mi	parts.
30	0	5773
	15	5832
	30	5890
	45	5949
31	0	6009
	15	6068
	30	6128
	45	6188
32	0	6249
	15	6310
	30	6371
	45	6432
33	0	6494
	15	6556
	30	6619
	45	6682
34	0	6745
	15	6809
	30	6873
	45	6937
35	0	7002
	15	7067
	30	7133
	45	7199
36	0	7265
	15	7332
	30	7400
	45	7467
37	0	7535
	15	7604
	30	7673
	45	7743
38	0	7815
	15	7883
	30	7954
	45	8026
39	0	8098
	15	8170
	30	8243
	45	8317
40	0	8391
	15	8466
	30	8541
	45	8617
41	0	8693
	15	8770
	30	8847
	45	8925
42	0	9004
	15	9083
	30	9163
	45	9244
43	0	9325
	15	9407
	30	9490
	45	9573
44	0	9657
	15	9742
	30	9827
	45	6913

gr	mi	parts.
45	0	10000
	15	10088
	30	10176
	45	10265
46	0	10351
	15	10446
	30	10538
	45	10630
47	0	10724
	15	10818
	30	10913
	45	11009
48	0	11106
	15	11204
	30	11303
	45	11403
49	0	11504
	15	11606
	30	11708
	45	11812
50	0	11917
	15	12024
	30	12131
	45	12239
51	0	12349
	15	12460
	30	12578
	45	12685
52	0	12799
	15	12915
	30	13032
	45	13151
53	0	13270
	15	13391
	30	13514
	45	13638
54	0	13764
	15	13891
	30	14020
	45	14155
55	0	14281
	15	14415
	30	14550
	45	14687
56	0	14826
	15	14966
	30	15108
	45	15252
57	0	15398
	15	15547
	30	15697
	45	15849
58	0	16003
	15	16160
	30	16318
	45	16480
59	0	16643
	15	16808
	30	16977
	45	17147

gr	mi	parts.
60	0	17320
	15	17496
	30	17675
	45	17856
61	0	18 40
	15	18227
	30	18418
	45	18611
62	0	18807
	15	19007
	30	19210
	45	19416
63	0	19626
	15	19840
	30	20057
	45	20278
64	0	20503
	15	20732
	30	20965
	45	21203
65	0	21445
	15	21692
	30	21943
	45	22199
66	0	22460
	15	22727
	30	22998
	45	23275
67	0	23558
	15	23847
	30	24142
	45	24443
68	0	24751
	15	25065
	30	25386
	45	25715
69	0	26051
	15	26394
	30	26746
	45	27106
70	0	27475
	15	27852
	30	28239
	45	28635
71	0	29042
	15	29459
	30	29887
	45	30326
72	0	30777
	15	31240
	30	31716
	45	32205
73	0	32708
	15	33226
	30	33759
	45	34308
74	0	34874
	15	33457
	30	36059
	45	36680

gr	mi	parts.
75	0	37320
	15	37983
	30	38667
	45	39375
76	0	40103
	15	40866
	30	41653
	45	42468
77	0	43315
	15	44194
	30	45107
	45	46057
78	0	47046
	15	48087
	30	49152
	45	50273
79	0	51445
	15	52671
	30	53955
	45	55300
80	0	56713
	15	58196
	30	59757
	45	61402
81	0	63137
	15	64971
	30	66911
	45	68969
82	0	71154
	15	73478
	30	75957
	45	78606
83	0	81443
	15	84489
	30	87769
	45	91309
84	0	95144
	15	99310
	30	103854
	45	108829
85	0	114300
	15	120346
	30	127062
	45	134566
86	0	143006
	15	152570
	30	163498
	45	176105
87	0	190811
	15	208188
	30	229038
	45	254518
88	0	286362
	15	327302
	30	381885
	45	458293
89	0	572900
	15	763900
	30	114588
	45	229181

CHAP.

CHAP XVI.

Of the breadth of the Lands.

THe breadth of Lands or Countries is no other, then the diſtance or wideneſſe that is betweene the ſaid Lands and the Equinoctiall Line, which is reckoned in a double manner, that is northerly and ſoutherly, to the number of 90. Such Lands or Countries as lye right under the Equinoctiall Line have no breadth: but ſuch as lye northward from it, have northerly breadth, and they that lye ſoutherly, have ſoutherly breadth.

Example.

The Iland of S. Thomas, in the River Gaban in Guiena lyeth right under the Line, and therefore hath no breadth neither northerly nor ſoutherly.

The Cape S. Vincent in Spaine lieth northward from the Line 37 degrees, and therfore the northern breadth of Cape S. Vincent is 37 degrees.

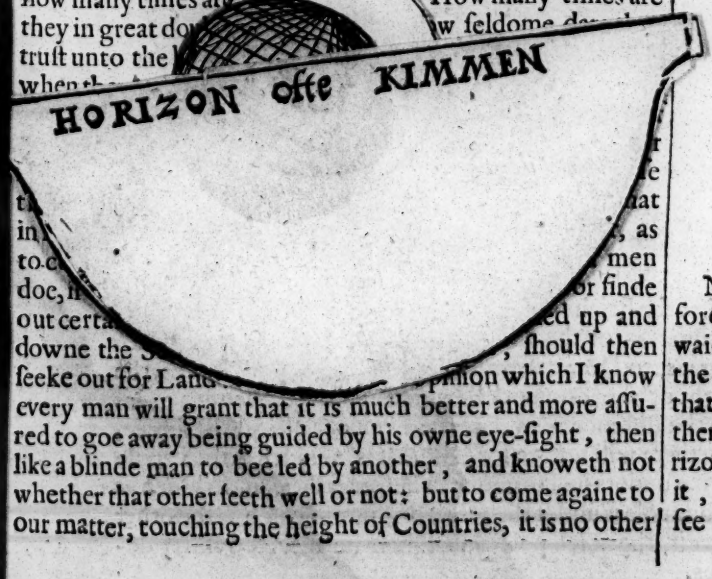
The point of Lezaret in England lyeth northward from the Line 50 degrees, therefore the north breadth of Lezaret is 50 degrees.

The Cape de bona Eſperance lyeth ſouthward from the Line 34 degrees and a halfe, therfore the ſoutherly breadth of Cape de bona Eſperance is 32 degrees and a halfe. In like manner you muſt underſtand and reckon their Lands, Countries and Townes.

CHAP XVII.

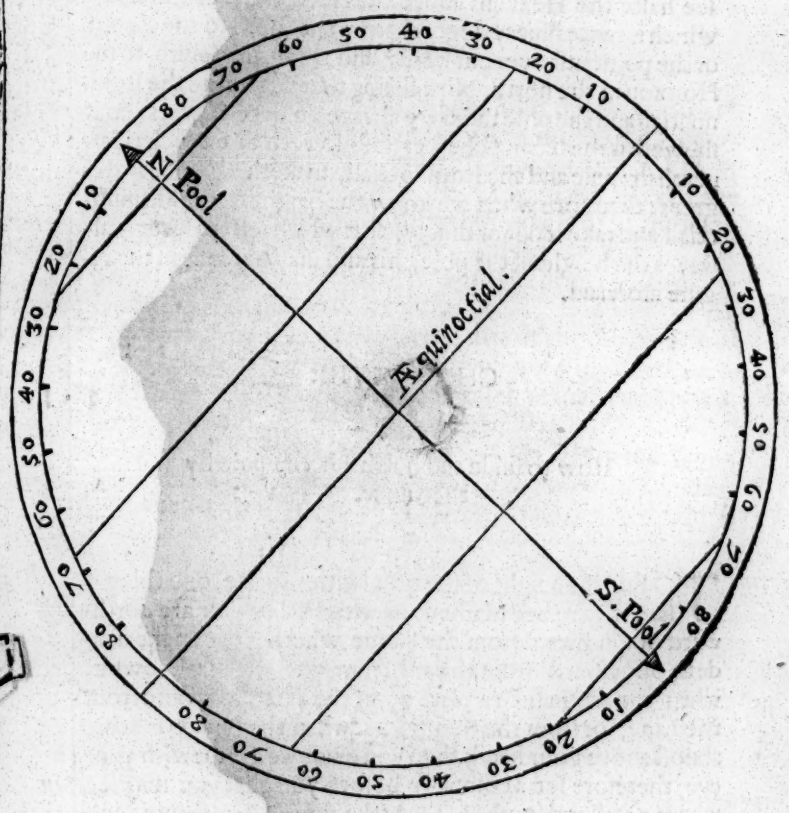
Of the height of lands and Countries, and what it is

THe height and breadth of Lands and Countreyes although that in themſelves they are divers things, yet they are alwayes one like unto the other. Any Countrey being ſituated under the breadth of 30 degrees, lyeth alſo in the height 30 degrees, which by Sea-faring men is taken without difference, but what it is, or what it hath in it or ſignifieth few men underſtand, and yet it behooveth a ſea-faring man, that ſeeketh for the height of any Countries, to bee expert therein, ſ[illegible]hat no man without it can well underſtand how many [illegible]ments (whether it bee Aſtrolabium, or Croſſe ſtaf[illegible]o nor the Sea-compaſſe it ſelfe) ſhould well be uſed: [illegible]t theſe things are all built upon one foundation, and [illegible]haine hang one upon the other But it may be that ſom[illegible] will object and ſay, that there are many Pilots which [illegible]ot well underſtand ſuch things and yet are able to goe [illegible]y unto divers places, whether they deſire to ſaile: wh[illegible]ſſe to be true: but tell me how many times are[illegible] How many times are they in great do[illegible]w ſeldome d[illegible] truſt unto the [illegible] when t[illegible]



the Horizon, ſo much is the height of ſuch a Country: and this height agreeth alwayes with the breadth as aforeſayd. In the 10 Chapter it is ſhewed, that whereſoever a man goeth or turneth, alwaies the one halfe of the Heavens ſheweth it ſelfe above the Horizon and the other halfe is hidden from us: in the firſt chapter it is ſaid that the two poles ſtand right one againſt the other, whereby it is evidently to bee underſtood, that whenſoever a man being upon the earth is right under the Equinoctiall line, that then both the Poles of the World, lye right in the Horizon, one in the ſouth and the other in the north: and as much as a man travaileth northward from the Equinoctiall line; and winneth breadth northerly, ſo much the north Pole riſeth above the Horizon: & the ſ. Pole contrariwiſe goeth ſo much under: and on the contrary, as many degrees as a man goeth from the Equinoctiall line ſouthward, and winneth breadth ſouthward, ſo much the ſouth Pole riſeth above the Horizon, and the n. Pole goeth ſo much under: which may eaſily be underſtood by the figure hereafter following.

In this figure the innermoſt roundell that turneth about, ſignifieth the Heaven, N the north Pole, S the South Pole, Æ, the Equinoctiall, the uppermoſt edge of the halfe moveable roundel, ſignifieth the Horizon, the one halfe of the Heavens is above it, and the other halfe juſt under it, the round ball in the middle ſignifieth the earth, wherein you ſee a little man, that may be turned upon the earth ſouthward and northward.



Now perfectly to marke and perceive that which is before written, that is to know what height is, and that it alwaies agreeth with the breadth, bring the little man upon the Earth globe right under the Equinoctiall, that is to ſay, that it have no breadth, neither northward nor ſouthward, then you ſhall ſee that both the Poles lye juſt with the Horizon, and that neither of them both are elevated above it, nor depreſſed under it: and with all you ſhall ſee that they that dwell under the Equinoctiall have

no

quinoctiall, this being taken from BZ, or EG 90, there remaines EZ, or BG thirty, just at PA the corner of the Pole.

But if you marke this staffe with the number inverted, so that in the place of 90. you set 0. for 80. 10. for 70. 20. and so forth, as the common crosse staffe is marked ordinarily, which you use toward the Sunne, you must then on the contrary and the northerly declination, and substract the southerly, and so at the first without further marking, you have the height as it is in the figure, if as in that which went before you to the height of the Sun being elevated at D 70. gr. you shall in place 70 finde on the staffe 20 that is not the height of the Sun from the Horizon BD, but the fulfilling of the height to 90. degrees as DZ, that is the distance of the Sun and Zenith, if then you joine to it the northerly declination DE 10 gr. that makes together EZ 30 degrees, the distance of the Equinoctiall and the Zenith, and just at PA the elevation of the Pole. In the same manner if the Sun hath southerly declination, and is risen from the Horizon 50 gr. as in S. you shal not find on the staffe 50 gr. for BS, but 40 gr. for SZ the distance of the Sunne and the Zenith. Then if you take SE the southerly declination from SZ 40 there remains EZ 30 degrees, for the distance of the Equinoctiall and the Zenith just at PA the height of the Pole.

it is done for 2 cauſes: firſt that you may ſlide it netherward or outward as theſe and ſliding of the great croſſe requireth, ſecondly, that in foule weather when the waves goe high, you may ſet it inward (as occaſion ſhall require) for your better meaſuring, for where the waves are high and troubleſom long inſtruments, are not ſo fit for uſe as ſhort. This foreſaid croſſe ſtaffe is very fit, to take the height certainely on the firm land, without the uſe of the Horizon. That you may do this, you ſhal lay the ſtaffe on a table or any other flat place in a right line with the water the eye end directly to the ſouth, and with the other end, where the thwart ſliding peece ſtandeth to the north, on two ſmooth peeces of wood, ſo much lifted up that you may ſlide the long croſſe too and againe without hinderance, then when the Sunne comes directly ſouth, (that is, when the Sunne hath equall ſhadow on each ſide of the ſtaffe, then ſhall you ſlide the long croſſe too and fro, ſo long untill the ſhadow of the eare at the little croſſe fall juſt betweene the two parrallel lines on the thwart croſſe; that being done, you ſhall finde the height of the Sun in the ſtaffe at the long croſſe, which being found, you ſhall by that know the height of the Pole or the diſtance of the place where you take the height according to the inſtructions before laid downe.

Here followeth the Table by which you muſt marke the foreſaid croſſe ſtaffe.

The firſt columne ſheweth the degrees, the ſecond the minutes, which are above the degrees, the third the number of prickes, points, or parts belonging to ſuch degrees and minutes.

gr	mi	parts.
0	0	0
	15	43
	30	87
	45	131
1	0	157
	15	218
	30	262
	45	306
2	0	349
	15	393
	30	437
	45	480
3	0	524
	15	568
	30	612
	45	655
4	0	699
	15	743
	03	787
	45	831
5	0	875
	15	919
	30	963
	45	1007
6	0	1051
	15	1095
	30	1139
	45	1184
7	0	1228
	15	1272
	30	1317
	45	1361
8	0	1405
	15	1450
	30	1495
	45	1539
9	0	1584
	15	1629
	30	1673
	45	1718
10	0	1763
	15	1808
	30	1853
	45	1899
11	0	1984
	15	1989
	30	2034
	45	2080
12	0	2126
	15	2171
	30	2217
	45	2263
13	0	2309
	15	2355
	30	2401
	45	2447
14	0	2493
	15	2540
	30	2506
	45	2633

gr	mi	parts.
15	0	2680
	15	2726
	30	2773
	45	2820
16	0	2867
	15	2915
	30	2962
	45	3010
17	0	3057
	15	3105
	30	3153
	45	3101
18	0	3250
	15	3297
	30	3346
	45	3394
19	0	3443
	15	3492
	30	3541
	45	3590
20	0	3640
	15	3689
	30	3739
	45	3789
21	0	3839
	15	3889
	30	3939
	45	3990
22	0	4040
	15	4091
	30	4142
	45	4193
23	0	4245
	15	4296
	30	4348
	45	4400
24	0	4452
	15	4505
	30	4557
	45	4620
25	0	4663
	15	4716
	30	4770
	45	4923
26	0	4877
	15	4931
	30	4986
	45	5040
27	0	4095
	15	5150
	30	5206
	45	5261
28	0	5317
	15	5373
	30	5429
	45	5486
29	0	5543
	15	5600
	30	5657
	45	5715

gr	mi	parts.
30	0	5773
	15	5832
	30	5890
	45	5949
31	0	6009
	15	6068
	30	6128
	45	6188
32	0	6249
	15	6310
	30	6371
	45	6432
33	0	6494
	15	6556
	30	6619
	45	6682
34	0	6745
	15	6809
	30	6873
	45	6937
35	0	7002
	15	7067
	30	7133
	45	7199
36	0	7265
	15	7332
	30	7400
	45	7467
37	0	7535
	15	7604
	30	7673
	45	7743
38	0	7815
	15	7883
	30	7954
	45	8026
39	0	8098
	15	8170
	30	8243
	45	8317
40	0	8391
	15	8466
	30	8541
	45	8617
41	0	8693
	15	8770
	30	8847
	45	8925
42	0	9004
	15	9083
	30	9163
	45	9244
43	0	9325
	15	9407
	30	9490
	45	9573
44	0	9657
	15	9742
	30	9827
	45	6913

gr	mi	parts.
45	0	10000
	15	10088
	30	10176
	45	10265
46	0	10355
	15	10446
	30	10538
	45	10630
47	0	10724
	15	10818
	30	10913
	45	11009
48	0	11106
	15	11204
	30	11303
	45	11403
49	0	11504
	15	11606
	30	11708
	45	11812
50	0	11917
	15	12024
	30	12131
	45	12239
51	0	12349
	15	12460
	30	12578
	45	12685
52	0	12799
	15	12915
	30	13032
	45	13151
53	0	13270
	15	13391
	30	13514
	45	13638
54	0	13764
	15	13891
	30	14020
	45	14155
55	0	14281
	15	14415
	30	14550
	45	14687
56	0	14826
	15	14966
	30	15108
	45	15252
57	0	15398
	15	15547
	30	15697
	45	15849
58	0	16003
	15	16160
	30	16318
	45	16480
59	0	16643
	15	16808
	30	16977
	45	17147

gr	mi	parts.
60	0	17320
	15	17496
	30	17675
	45	17856
61	0	18040
	15	18227
	30	18418
	45	18611
62	0	18807
	15	19007
	30	19210
	45	19416
63	0	19626
	15	19840
	30	20057
	45	20278
64	0	20503
	15	20732
	30	20965
	45	21203
65	0	21445
	15	21692
	30	21943
	45	22199
66	0	22460
	15	22727
	30	22998
	45	23275
67	0	23558
	15	23847
	30	24142
	45	24443
68	0	24751
	15	25065
	30	25386
	45	25715
69	0	26051
	15	26394
	30	26746
	45	27106
70	0	27475
	15	27852
	30	28239
	45	28635
71	0	29042
	15	29459
	30	29887
	45	30326
72	0	30777
	15	31240
	30	31716
	45	32205
73	0	32708
	15	33226
	30	33759
	45	34308
74	0	34874
	15	33457
	30	36059
	45	36680

gr	mi	parts.
75	0	37320
	15	37983
	30	38667
	45	39375
76	0	40103
	15	40866
	30	41653
	45	42468
77	0	43315
	15	44194
	30	45107
	45	46057
78	0	47046
	15	48087
	30	49152
	45	50273
79	0	51445
	15	52671
	30	53955
	45	55300
80	0	56713
	15	58196
	30	59757
	45	61402
81	0	63137
	15	64971
	30	66911
	45	68969
82	0	71154
	15	73478
	30	75957
	45	78606
83	0	81443
	15	84489
	30	87769
	45	91309
84	0	95144
	15	99310
	30	103854
	45	108829
85	0	114300
	15	120346
	30	127062
	45	134566
86	0	143006
	15	152570
	30	163498
	45	176105
87	0	190811
	15	208188
	30	229038
	45	254518
88	0	286362
	15	327302
	30	381885
	45	458293
89	0	572900
	15	763900
	30	1114588
	45	2291810

CHAP.

CHAP. XVI.

Of the breadth of the Lands.

THe breadth of Lands or Countries is no other, then the diſtance or wideneſſe that is betweene the ſaid Lands and the Equinoctiall Line, which is reckoned in a double manner, that is northerly and ſoutherly, to the number of 90. Such Lands or Countries as lye right under the Equinoctiall Line have no breadth: but ſuch as lye northward from it, have northerly breadth, and they that lye ſoutherly, have ſoutherly breadth.

Example.

The Iland of S. Thomas, in the River Gaban in Guiena lyeth right under the Line, and therefore hath no breadth neither northerly nor ſoutherly.

The Cape S. Vincent in Spaine lieth northward from the Line 37 degrees, and therfore the northern breadth of Cape S. Vincent is 37 degrees.

The point of Lezaret in England lyeth northward from the Line 50 degrees, therefore the north breadth of Lezaret is 50 degrees.

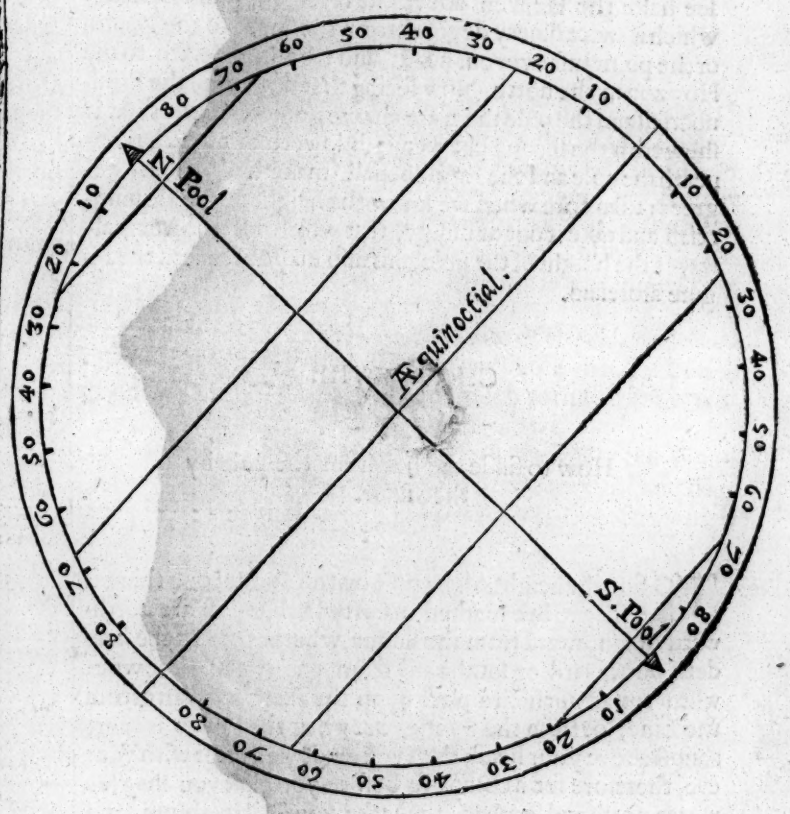
The Cape de bona Eſperance lyeth ſouthward from the Line 34 degrees and a halfe, therfore the ſoutherly breadth of Cape de bona Eſperance is 32 degrees and a halfe. In like manner you muſt underſtand and reckon their Lands, Countries and Townes.

CHAP. XVII.

Of the height of lands and Countries, and what it is

THe height and breadth of Lands and Countreyes although that in themſelves they are divers things, yet they are alwayes one like unto the other. Any Countrey being ſituated under the breadth of 30 degrees, lyeth alſo in the height 30 degrees, which by Sea-faring men is taken without difference, but what it is, or what it hath in it or ſignifieth few men underſtand, and yet it behooveth a ſea-faring man, that ſeeketh for the height of any Countries, to bee expert therein, for that no man without it can well underſtand how many inſtruments (whether it bee Aſtrolabium, or Croſſe ſtaffe, no nor the Sea-compaſſe it ſelfe) ſhould well be uſed: for that theſe things are all built upon one foundation, and like a chaine hang one upon the other But it may be that ſome man will object and ſay, that there are many Pilots which doe not well underſtand ſuch things and yet are able to goe directly unto divers places, whether they deſire to ſaile: which I confeſſe to be true: but tell me how many times are they deceived: How many times are they in great doubt and feare? and how ſeldome dare they truſt unto the height which they have taken or reckoned, when they are to ſeeke out any Countrey thereby? how oftentimes hath it heretofore happened, that for want of ſuch knowledge, ſhippes have ſayled out of their way either behinde England, or upon France, which thought to paſſe through the channell between England and France, and that in ſo ſhort and well knowne, and common ſayled water, as to come out of Spaine or France? what would ſuch men doe, if they ſhould paſſe the Line, and were to ſeeke or finde out certaine Ilands? or that after they had ſayled up and downe the Seas certaine moneths together, ſhould then ſeeke out for Land? but I am of this opinion which I know every man will grant that it is much better and more aſſured to goe away being guided by his owne eye-ſight, then like a blinde man to bee led by another, and knoweth not whether that other ſeeth well or not: but to come againe to our matter, touching the height of Countries, it is no other the Horizon, ſo much is the height of ſuch a Country: and this height agreeth alwayes with the breadth as aforeſayd. In the 10 Chapter it is ſhewed, that whereſoever a man goeth or turneth, alwaies the one halfe of the Heavens ſheweth it ſelfe above the Horizon and the other halfe is hidden from us: in the firſt chapter it is ſaid that the two poles ſtand right one againſt the other, whereby it is evidently to bee underſtood, that whenſoever a man being upon the earth is right under the Equinoctiall line, that then both the Poles of the World, lye right in the Horizon, one in the ſouth and the other in the north: and as much as a man travaileth northward from the Equinoctiall line; and winneth breadth northerly, ſo much the north Pole riſeth above the Horizon: & the ſ. Pole contrariwiſe goeth ſo much under: and on the contrary, as many degrees as a man goeth from the Equinoctiall line ſouthward, and winneth breadth ſouthward, ſo much the ſouth Pole riſeth above the Horizon, and the n. Pole goeth ſo much under: which may eaſily be underſtood by the figure hereafter following.

In this figure the innermoſt roundell that turneth about, ſignifieth the Heaven, N the north Pole, S the South Pole, Æ, the Equinoctiall, the uppermoſt edge of the halfe moveable roundel, ſignifieth the Horizon, the one halfe of the Heavens is above it, and the other halfe juſt under it, the round ball in the middle ſignifieth the earth, wherein you ſee a little man, that may be turned upon the earth ſouthward and northward.



Now perfectly to marke and perceive that which is before written, that is to know what height is, and that it alwaies agreeth with the breadth, bring the little man upon the Earth globe right under the Equinoctiall, that is to ſay that it have no breadth, neither northward nor ſouthward, then you ſhall ſee that both the Poles lye juſt with the Horizon, and that neither of them both are elevated above it, nor depreſſed under it: and with all you ſhall ſee that they that dwell under the Equinoctiall have

no

quinoctiall, this being taken from BZ, or EG 90, there remaines EZ, or BG thirty, just at PA the corner of the Pole.

But if you marke this staffe with the number inverted, so that in the place of 90. you set 0. for 80. 10. for 70. 20. and so forth, as the common crosse staffe is marked ordinarily, which you use toward the Sunne, you must then on the contrary and the northerly declination, and substract the southerly, and so at the first without further marking, you have the height as it is in the figure, if as in that which went before you to the height of the Sun being elevated at D 70. gr. you shall in place 70 finde on the staffe 20 that is not the height of the Sun from the Horizon BD, but the fulfilling of the height to 90. degrees as DZ, that is the distance of the Sun and Zenith, if then you joine to it the northerly declination DE 10 gr. that makes together EZ 30 degrees, the distance of the Equinoctiall and the Zenith, and just at PA the elevation of the Pole. In the same manner if the Sun hath southerly declination, and is risen from the Horizon 50 gr. as in S. you shal not find on the staffe 50 gr. for BS, but 40 gr. for SZ the distance of the Sunne and the Zenith. Then if you take SE the southerly declination from SZ 40 there remains EZ 30 degrees, for the distance of the Equinoctiall and the Zenith just at PA the height of the Pole.

it is done for 2 cauſes; firſt that you may ſlide it netherward or outward as theſe and ſliding of the great croſſe requireth, ſecondly, that in foule weather when the waves goe high, you may ſet it inward (as occaſion ſhall require) for your better meaſuring, for where the waves are high and troubleſom long inſtruments, are not ſo fit for uſe as ſhort. This foreſaid croſſe ſtaffe is very fit, to take the height certainely on the firm land, without the uſe of the Horizon. That you may do this, you ſhal lay the ſtaffe on a table or any other flat place in a right line with the water the eye end directly to the ſouth, and with the other end, where the thwart ſliding peece ſtandeth to the north, on two ſmooth peeces of wood, ſo much lifted up that you may ſlide the long croſſe too and againe without hinderance, then when the Sunne comes directly ſouth, (that is, when the Sunne hath equall ſhadow on each ſide of the ſtaffe, then ſhall you ſlide the long croſſe too and fro, ſo long untill the ſhadow of the eare at the little croſſe fall juſt betweene the two parrallel lines on the thwart croſſe; that being done, you ſhall finde the height of the Sun in the ſtaffe at the long croſſe, which being found, you ſhall by that know the height of the Pole or the diſtance of the place where you take the height according to the inſtructions before laid downe.

Here followeth the Table by which you muſt marke the foreſaid croſſe ſtaffe.

The firſt columne ſheweth the degrees, the ſecond the minutes, which are above the degrees, the third the number of prickes, points, or parts belonging to ſuch degrees and minutes.

gr	mi	parts.
0	0	0
	15	43
	30	87
	45	131
1	0	157
	15	218
	30	262
	45	306
2	0	349
	15	393
	30	437
	45	480
3	0	524
	15	568
	30	612
	45	655
4	0	699
	15	743
	03	787
	45	831
5	0	875
	15	919
	30	963
	45	1007
6	0	1051
	15	1095
	30	1139
	45	1184
7	0	1228
	15	1272
	30	1317
	45	1361
8	0	1405
	15	1450
	30	1495
	45	1539
9	0	1584
	15	1629
	30	1673
	45	1718
10	0	1763
	15	1808
	30	1853
	45	1899
11	0	1984
	15	1989
	30	2034
	45	2080
12	0	2126
	15	2171
	30	2217
	45	2263
13	0	2309
	15	2355
	30	2401
	45	2447
14	0	2493
	15	2540
	30	2506
	45	2633

gr	mi	parts.
15	0	2680
	15	2726
	30	2773
	45	2820
16	0	2867
	15	2915
	30	2962
	45	3010
17	0	3057
	15	3105
	30	3153
	45	3101
18	0	3250
	15	3297
	30	3346
	45	3394
19	0	3443
	15	3492
	30	3541
	45	3590
20	0	3640
	15	3689
	30	3739
	45	3789
21	0	3839
	15	3889
	30	3939
	45	3990
22	0	4040
	15	4091
	30	4142
	45	4193
23	0	4245
	15	4296
	30	4348
	45	4400
24	0	4452
	15	4505
	30	4557
	45	4620
25	0	4663
	15	4716
	30	4770
	45	4923
26	0	4877
	15	4931
	30	4986
	45	5040
27	0	4095
	15	5150
	30	5206
	45	5261
28	0	5317
	15	5373
	30	5429
	45	5486
29	0	5543
	15	5600
	30	5657
	45	5715

gr	mi	parts.
30	0	5773
	15	5832
	30	5890
	45	5949
31	0	6009
	15	6068
	30	6128
	45	6188
32	0	6249
	15	6310
	30	6371
	45	6432
33	0	6494
	15	6556
	30	6619
	45	6682
34	0	6745
	15	6809
	30	6873
	45	6937
35	0	7002
	15	7067
	30	7133
	45	7199
36	0	7265
	15	7332
	30	7400
	45	7467
37	0	7535
	15	7604
	30	7673
	45	7743
38	0	7815
	15	7883
	30	7954
	45	8026
39	0	8098
	15	8170
	30	8243
	45	8317
40	0	8391
	15	8466
	30	8541
	45	8617
41	0	8693
	15	8770
	30	8847
	45	8925
42	0	9004
	15	9083
	30	9163
	45	9244
43	0	9325
	15	9407
	30	9490
	45	9573
44	0	9657
	15	9742
	30	9827
	45	6913

gr	mi	parts.
45	0	10000
	15	10088
	30	10176
	45	10265
46	0	10355
	15	10446
	30	10538
	45	10630
47	0	10724
	15	10818
	30	10913
	45	11009
48	0	11106
	15	11204
	30	11303
	45	11403
49	0	11504
	15	11606
	30	11708
	45	11812
50	0	11917
	15	12024
	30	12131
	45	12239
51	0	12349
	15	12460
	30	12578
	45	12685
52	0	12799
	15	12915
	30	13032
	45	13151
53	0	13270
	15	13391
	30	13514
	45	13638
54	0	13764
	15	13891
	30	14020
	45	14155
55	0	14281
	15	14415
	30	14550
	45	14687
56	0	14826
	15	14966
	30	15108
	45	15252
57	0	15398
	15	15547
	30	15697
	45	15849
58	0	16003
	15	16160
	30	16318
	45	16480
59	0	16643
	15	16808
	30	16977
	45	17147

gr	mi	parts.
60	0	17320
	15	17496
	30	17675
	45	17856
61	0	18040
	15	18227
	30	18418
	45	18611
62	0	18807
	15	19007
	30	19210
	45	19416
63	0	19626
	15	19840
	30	20057
	45	20278
64	0	20503
	15	20732
	30	20965
	45	21203
65	0	21445
	15	21692
	30	21943
	45	22199
66	0	22460
	15	22727
	30	22998
	45	23275
67	0	23558
	15	23847
	30	24142
	45	24443
68	0	24751
	15	25065
	30	25386
	45	25715
69	0	26051
	15	26394
	30	26746
	45	27106
70	0	27475
	15	27852
	30	28239
	45	28635
71	0	29042
	15	29459
	30	29887
	45	30326
72	0	30777
	15	31240
	30	31716
	45	32205
73	0	32708
	15	33226
	30	33759
	45	34308
74	0	34874
	15	33457
	30	36059
	45	36680

gr	mi	parts.
75	0	37320
	15	37983
	30	38667
	45	39375
76	0	40103
	15	40866
	30	41653
	45	42468
77	0	43315
	15	44194
	30	45107
	45	46057
78	0	47046
	15	48087
	30	49152
	45	50273
79	0	51445
	15	52671
	30	53955
	45	55300
80	0	56713
	15	58196
	30	59757
	45	61402
81	0	63137
	15	64971
	30	66911
	45	68969
82	0	71154
	15	73478
	30	75957
	45	78606
83	0	81443
	15	84489
	30	87769
	45	91309
84	0	95144
	15	99310
	30	103854
	45	108829
85	0	114300
	15	120346
	30	127062
	45	134566
86	0	143006
	15	152570
	30	163498
	45	176105
87	0	190811
	15	208188
	30	229038
	45	254518
88	0	286362
	15	327302
	30	381885
	45	458293
89	0	572900
	15	763900
	30	114588
	45	229181

CHA

CHAP XVI.

Of the breadth of the Lands.

THe breadth of Lands or Countries is no other, then the diſtance or wideneſſe that is betweene the ſaid Lands and the Equinoctiall Line, which is reckoned in a double manner, that is northerly and ſoutherly, to the number of 90. Such Lands or Countries as lye right under the Equinoctiall Line have no breadth: but ſuch as lye northward from it, have northerly breadth, and they that lye ſoutherly, have ſoutherly breadth.

Example.

The Iland of S. Thomas, in the River Gaban in Guiena lyeth right under the Line, and therefore hath no breadth neither northerly nor ſoutherly.

The Cape S. Vincent in Spaine lieth northward from the Line 37 degrees, and therfore the northern breadth of Cape S. Vincent is 37 degrees.

The point of Lezaret in England lyeth northward from the Line 50 degrees, therefore the north breadth of Lezaret is 50 degrees.

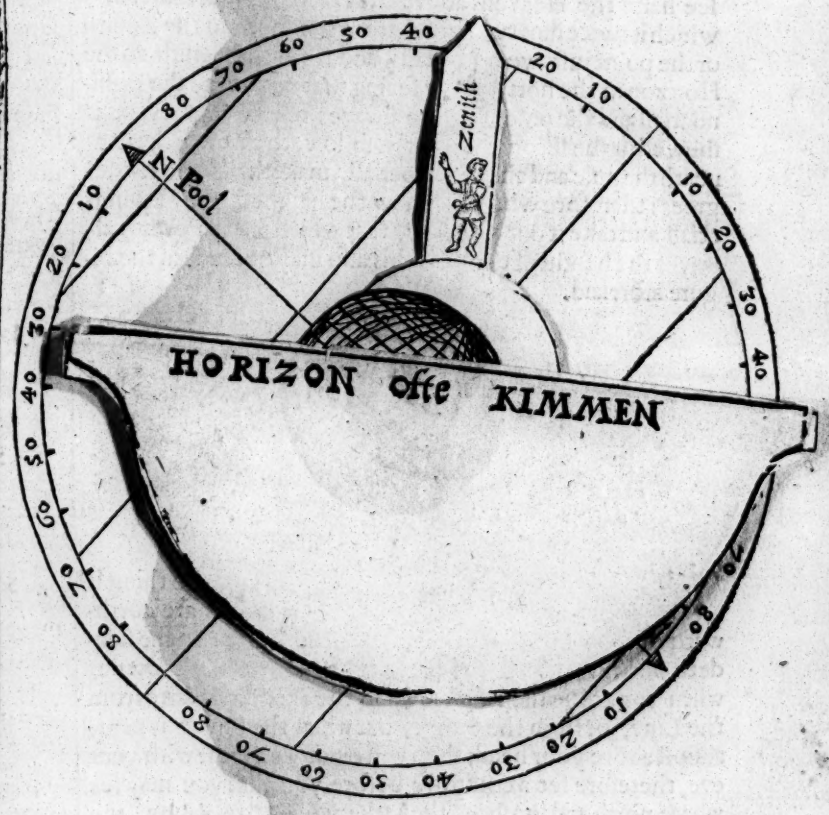
The Cape de bona Eſperance lyeth ſouthward from the Line 34 degrees and a halfe, therfore the ſoutherly breadth of Cape de bona Eſperance is 32 degrees and a halfe. In like manner you muſt underſtand and reckon their Lands, Countries and Townes.

CHAP XVII.

Of the height of lands and Countries, and what it is

THe height and breadth of Lands and Countreyes although that in themſelves they are divers things, yet they are alwayes one like unto the other. Any Countrey being ſituated under the breadth of 30 degrees, lyeth alſo in the height 30 degrees, which by Sea-faring men is taken without difference, but what it is, or what it hath in it or ſignifieth few men underſtand, and yet it behooveth a ſea-faring man, that ſeeketh for the height of any Countries, to bee expert therein, for that no man without it can well underſtand how many inſtruments (whether it bee Aſtrolabium, or Croſſe ſtaffe, no nor the Sea-compaſſe it ſelfe) ſhould well be uſed: for that theſe things are all built upon one foundation, and like a chaine hang one upon the other But it may be that ſome man will object and ſay, that there are many Pilots which doe not well underſtand ſuch things and yet are able to goe directly unto divers places, whether they deſire to ſaile: which I confeſſe to be true: but tell me how many times are they deceived: How many times are they in great doubt and feare? and how ſeldome dare they truſt unto the height which they have taken or reckoned, when they are to ſeeke out any Countrey thereby? how oftentimes hath it heretofore happened, that for want of ſuch knowledge, ſhippes have ſayled out of their way either behinde England, or upon France, which thought to paſſe through the channell between England and France, and that in ſo ſhort and well knowne, and common ſayled water, as to come out of Spaine or France? what would ſuch men doe, if they ſhould paſſe the Line, and were to ſeeke or finde out certaine Ilands? or that after they had ſayled up and downe the Seas certaine moneths together, ſhould then ſeeke out for Land? but I am of this opinion which I know every man will grant that it is much better and more aſſured to goe away being guided by his owne eye-ſight, then like a blinde man to bee led by another, and knoweth not whether that other ſeeth well or not: but to come againe to our matter, touching the height of Countries, it is no other the Horizon, ſo much is the height of ſuch a Country: and this height agreeth alwayes with the breadth as aforeſayd. In the 10 Chapter it is ſhewed, that whereſoever a man goeth or turneth, alwaies the one halfe of the Heavens ſheweth it ſelfe above the Horizon and the other halfe is hidden from us: in the firſt chapter it is ſaid that the two poles ſtand right one againſt the other, whereby it is evidently to bee underſtood, that whenſoever a man being upon the earth is right under the Equinoctiall line, that then both the Poles of the World, lye right in the Horizon, one in the ſouth and the other in the north: and as much as a man travaileth northward from the Equinoctiall line; and winneth breadth northerly, ſo much the north Pole riſeth above the Horizon: & the ſ. Pole contrariwiſe goeth ſo much under: and on the contrary, as many degrees as a man goeth from the Equinoctiall line ſouthward, and winneth breadth ſouthward, ſo much the ſouth Pole riſeth above the Horizon, and the n. Pole goeth ſo much under: which may eaſily be underſtood by the figure hereafter following.

In this figure the innermoſt roundell that turneth about, ſignifieth the Heaven, N the north Pole, S the South Pole, Æ, the Equinoctiall, the uppermoſt edge of the halfe moveable roundel, ſignifieth the Horizon, the one halfe of the Heavens is above it, and the other halfe juſt under it, the round ball in the middle ſignifieth the earth, wherein you ſee a little man, that may be turned upon the earth ſouthward and northward.



Now perfectly to marke and perceive that which is before written, that is to know what height is, and that it alwaies agreeth with the breadth, bring the little man upon the Earth globe right under the Equinoctiall, that is to ſay, that it have no breadth, neither northward nor ſouthward, then you ſhall ſee that both the Poles lye juſt with the Horizon, and that neither of them both are elevated above it, nor depreſſed under it: and with all you ſhall ſee that they that dwell under the Equinoctiall have

no

if you remove the man ſo much northward that hee goeth tenne degrees upon the earth, that is, that hee commeth tenne degrees upon the north breadth, you ſhall ſee that the north Pole ſhall bee raiſed or elevated tenne degrees above the Horizon in the north, and the ſouth Pole ſhall goe ten degrees under the Horizon: and if you remove the man upon the earth more northerly, as thirty, forty, or fifty degrees, the north Pole will alſo be ſo much elevated, and the ſouth Pole to the contrary ſo much depreſſed under the the Horizon: ſo that if you turne the man upon the earth to ninety degrees, then the north pole alſo will bee elevated ninety degrees, that is the pole will ſtand right above his head, and the Equinoctiall will joyne with the Horizon in one circle: that which thus is ſaid of the elevating of the n. pole, is alſo in the ſame manner to be underſtood of the ſ. pole: for if likewiſe you move the man upon the earth in Figure toward the South, the ſouth pole will bee elevated above the Horizon, as much as the man in breadth goeth ſouthward, and the north pole will goe ſo much under the Horizon.

One thing is herein to bee noted, that as much as the Pole riſeth above the Horizon juſt ſo much the Equinoctiall goeth under it, and when the pole goeth under, the Equinoctiall riſeth againe in equall proportion.

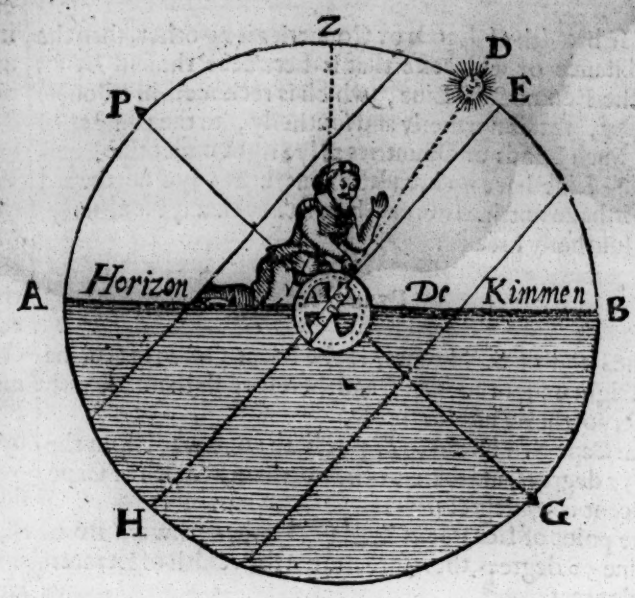
But above all you muſt marke, that the number of the poles elevation added to the height of the Equinoctiall alwayes make even ninety degrees, ſo that when the pole is elevated 30 degrees in the north, the Equinoctiall is elevated ſixty degrees in the ſouth: but if the ſouth pole be elevated above your Horizon twenty degrees, the Equinoctiall will bee elevated in the north ſeventy degrees, which is clearly underſtood and ſhewed in this manner: we alwayes ſee halfe the Heavens above the Horizon, (as aforeſaid) which is twice ninety degrees, from the ſouth to the Zenith or the point juſt over our heads, and from the Zenith to the Horizon in the north. Now ſeeing that betweene the Equinoctiall and the pole there are alwayes ninety degrees, (as is ſhewed in the ſecond chapter) it followeth that which is beneath the pole and the Equinoctiall, maketh alſo ninety degrees: therefore when we know the height of the Equinoctiall, and take it out of ninety, that which reſteth over is alwayes the height of the pole, this alſo may be ſeene in the Figure aforeſaid.

CHAP. XVIII.

How to finde the height of the pole by the Sunne.

TO find the height of the pole by the Sunne, one thing is ſpecially to bee marked, to wit whether you are northward or ſouthward from the Sunne, whether the Sunne ſtandeth northward or ſouthward from you is eaſily knowne, when you are in ſuch a place upon the earth as is farre from the Line, or from the Sunne, but when the Sunne is neare almoſt above your head, then you canot well ſee it with your eye, therefore ſet a compaſſe before you that you may ſee where north and ſouth is, then take your Aſtrolabium, and ſet it ſo that the one edge thereof ſtand right ſouth, and the the other north. and then you ſhall ſee at a haires breadth, whether the Sunne being at the height, ſtandeth northward or ſouthward from the head point or Zenith: if then you will ſeeke the height of the pole, when you are on the north ſide of the Sunne, that is, when the Sunne is ſouthward from you, then take the juſt height firſt, and as much as the declination of the Sunne is northward, take it out of your height and that which reſteth is the height of the Equinoctiall in the ſouth, which ſubſtracted out of ninety (as in the former Chapter is declared) then you have the height of the north Pole.

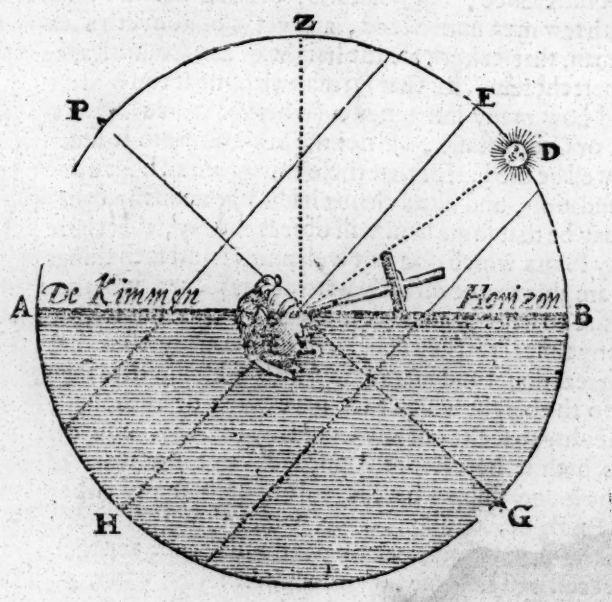
Example.



In this figure let P be the north pole, and G the ſ. pole; EH the Equinoctiall, AB the Horizon, Z the Zenith, and D the *Sun*: let the height of the Sun BD bee ſixty degrees above the Horizon: the northerly declination DE 8 degrees: if then you take DE 8 degrees from BD the height of the Sun, there will reſt BE 52 degrees, which is the height of the Equinoctiall, which taken out of 90 degrees, reſteth 38 degrees, for the height of the north pole A p, as in the 16. Chapter is ſhewed.

If the declination be ſoutherly, then adde into the height aforeſayd taken: and then if the addition bee leſſe then 90, then looke upon the height of the Line in the ſ. which taken out of 90, as aforeſaid, it leaveth you the height of the north pole.

Example,

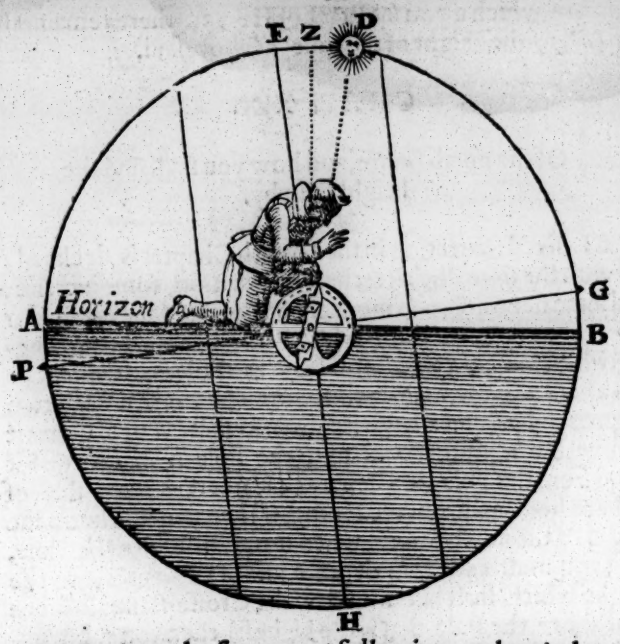


Let the height of the Sunne DB 40 degrees, the ſoutherly declination of the *Sun* ED 20 degrees, then adde ED 20 degrees, to DB 40 degrees, it maketh EB 60 degrees, the height of the Equinoctiall which ſubſtracted from 20, as EG the diſtance betweene the Equinoctiall and the ſ. pole; then there will reſt 30 for GB, that is, as much as the ſ. pole is gone under the Horizon: as before is ſhewed, ſo much as the one pole is under the Horizon, juſt ſo much is the other above it, the north pole p ſhall here be elevated thirty degrees.

But if

But if the height of the Sun being added unto the declination maketh more then 90. degrees, then you muſt underſtand, that the Equinoctiall is northward from your head juſt ſo much as the aforeſaid adition is more then 90 and ſo conſequently the ſouth Pole alſo ſhall be ſo much elevated

Example.

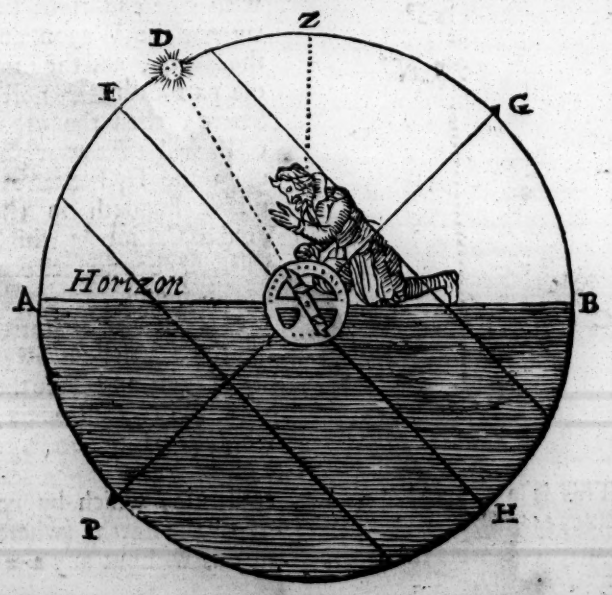


Looke into the figure next following, wherein let the height be DB 80 degrees, and the ſoutherly declination ED 18 degrees, then if you adde ED 18 degrees to BD 80 degrees, the height of the Sun, there will be 90 degrees for BE, ſeeing then that from the Horizon B, to the Zenith Z (that is the poynt in Heaven right above our heads) is juſt 90 degrees, as in the twelfth Chapter is taught) it followeth that E the Equinoctiall is eight degrees northwards from the Zenith Z, and ſo 82 degrees elevated in the north, above the Horizon: when EA is taken out of 90, there reſteth 8 degrees for the height of the ſouth Pole, G above the Horizon B, then you muſt underſtand, that you are betweene the Line and the Sunne.

How you ſhall finde the height of the Pole, when you are ſouthward from the Sunne.

WHen you perceive that you are ſouthward from the Sunne, that is when the Sunne ſtandeth northward from you, firſt (as aforeſaid) take the height of the *Sun*; then if the declination be ſouthwards, take it out of your height which you have found, and then you ſhall have the height of the Equinoctiall, which ſubſtracted from 90, it ſheweth under what height you are, ſouthward from the Line.

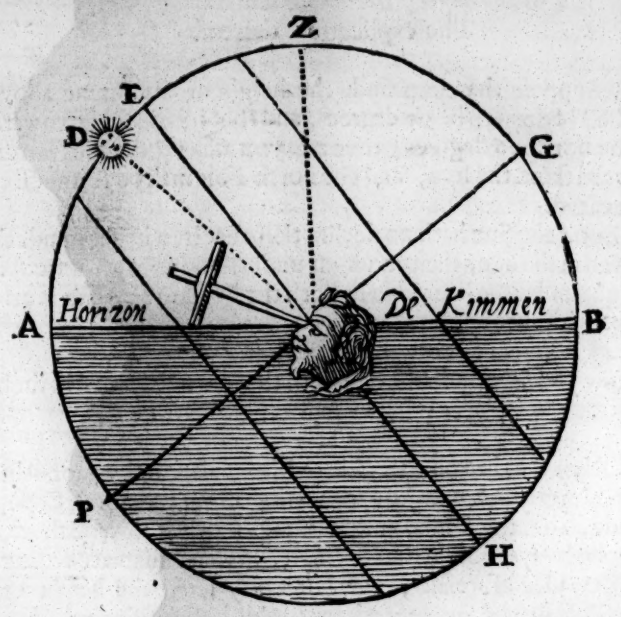
Example.



Behold the figure above ſtanding. Let AD be the height of the *Sunne* in 64 degrees: the ſoutherly declination ED 16 degrees: which ſubſtracted from AD the height of the Sunne, there remaineth for AE 48 degrees, the height of the Equinoctiall in the north, which ſubſtracted out of 90, then the height of the ſouth Pole GB will be 42 degrees.

If the declination be northerly, then adde it to the height found out, if then the addition bee leſſe then 19 it ſheweth you the height of the Equinoctiall, which taken out 90 you finde the height of the ſouth Pole.

Example.

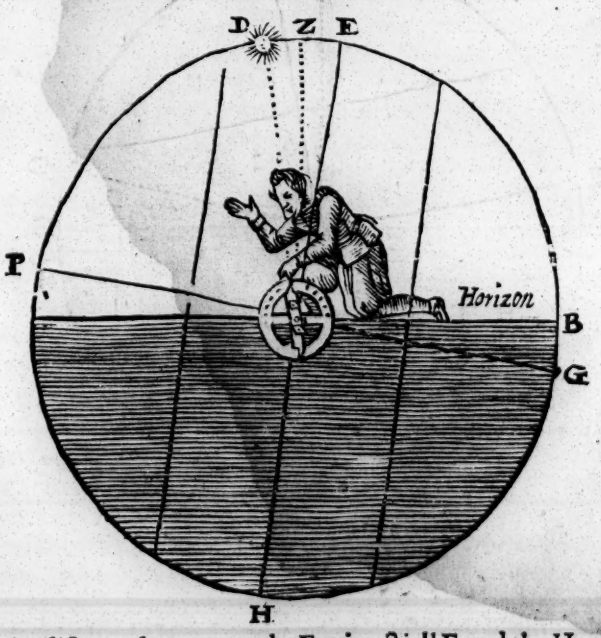


Looke on the figure with his circles as it followeth hereafter, let AD the height of the Sun in the north be 50 degr. and DE the northerly declination 15 deg. then adde ED 15 to DA 50 degrees, then you have 65 degrees, for AE the height of the Equinoctiall, then GB the height of the ſouth Pole is 25 degrees for as in the 16 Chapter it is ſhewed, the height of the Equinoctiall EA with the height of the Pole GB alwayes make 90 degrees.

But if the height and the declination of the *Sun* added together make more then 90, you muſt note that the Line is ſouthward from your Zenith, as much as that number is above 90

Example.

Look on the following figure, let the height of the *Sunne* AD in the north be 84 degrees, the declination ED 21 deg. adde them together, then you have AE 150 degrees, which



is the diſtance betweene the Equinoctiall E and the Horizon in the north: now marke that AE is 150, and P the Pole and E the Equinoctiall are even 90 degrees from each other then it followeth that P from A is 15. degrees, that is the height of the n. Pole above the Horizon, and ſo much you muſt be northward from the Line, and you muſt alſo marke that you are betweene the Line and the Sun.

How you ſhall finde the height when you are right under the Sunne.

IF you underſtand the rules before going well, then this is eaſie to be found. If you be right under the Sunne, that is, when the Sun is elevated 90 degrees, then you are even as many degrees northward or ſouthward from the line, as the Sun hath northerly or ſoutherly declination.

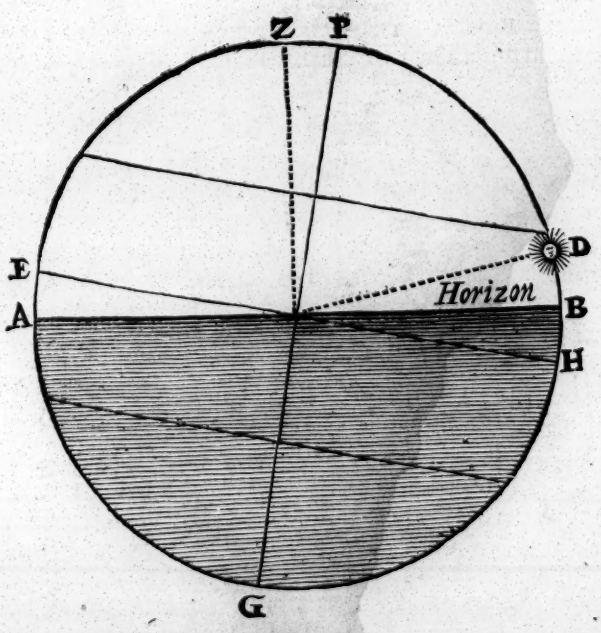
The explication thereof.

Suppoſe that you finde the height of the Sunne above the Horizon to be 90 degrees, and that it is declined toward the north 16 degrees, then are you alſo 16 degrees northward from the line, and the north Pole ſhall be ſo much elevated.

But if the Sun hath no declination, that is, when it ſtandeth even in the line, then you muſt underſtand, that you are alſo right under the line, and ſo both the Poles are on the Horizon without any elevation.

How you ſhall finde the height of the Sun northward in ſuch places whereas it goeth not downe

THey that in Sommer ſaile to Moſcovia, in the moneths May, June, and July, comming about the north Cape, finde, that the Sunne at that time goeth not downe there, but is alwayes above the Horizon, ſo that a man according to the rules aforeſaid, may not onely ſeeke the height of the Pole by the Sunne, when it is higheſt ſouthward, but alſo when it is northward at the loweſt, in this manner following. Take the height of the Sunne with the croſſe ſtaffe, when it is loweſt in the north, and adde there to the filling of the declination, (which is ſuch a number as together with the declination make ninetie, or ſo much as the Sunne ſtandeth from the Pole) and you ſhall find the juſt height of the Pole: or if you ſubſtract the height of the Sunne from his declination then you ſhall find how deep the Equinoctiall is depreſſed northward under the Horizon, or in the ſouth elevated above the Horizon, which ſubſtracted from 90. will likewiſe leave the height of the Pole, both theſe wayes I will declare a part.



Example.

Mark the Figure afore-going, where let BD be the height of the Sun about the Horizon, in the n. 7 degrees, HD the declination of the Sun 20 degrees, then ſhall DP the filling of the declination, or the diſtance of the Sun from the Pole be 70 degrees: now if you adde PD the filling of the declination 70, to BD 7, the height of the Sun, you ſhall find 77 degr. for BP the height of the Pole.

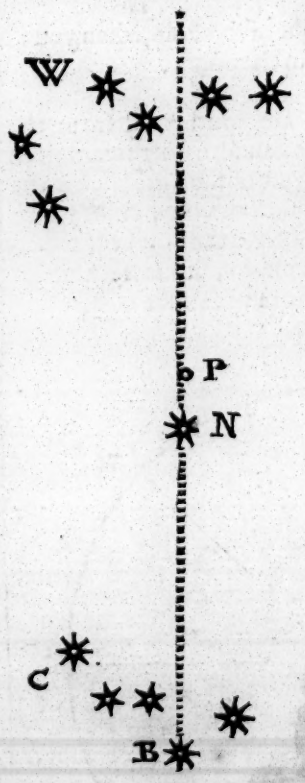
Another Example.

If you take the height of the Sun AD 7, from HD 20 the declination of the Sun, there will remain 13 for HB, and ſo much is the Equinoctiall in the north depreſſed under the Horizon, which if you ſubſtract of HP 93, there remaineth for AP, 77 the height of the Pole, as aboveſaid.

CHAP. XIX.

Of the north Starre, and how you ſhall find the height thereby.

ALL fixed Starres, as in the ſeventh Chapter is declared, with the time doe alter their declination, ſome increaſe, and ſome deminiſh, one more then the other, the north Star at this time is one of thoſe which is moſt ſubject to changing, which in anno 1600 ſtood from the Pole two degrees 50 and a halfe minute, and in the yeare 1700 it will ſtand two degrees and 16 and a halfe minutes, ſo that every 3 yeares it commeth a minute nearer unto the Pole in Anno 1608 it ſtood from the Pole two degrees 48 minutes, and thereof we have here made our reckoning, if then you will know the height of the north Starre, when it is right under the Pole, then you muſt adde two degrees and 48 minutes, to the height which ſhall bee found by the Croſſe-ſtaffe, ſo it bee right above the Pole that is the higheſt) then you muſt ſubtract two degrees and 48 minutes, and then you ſhall have the right height, but to know when it is right under the Pole at the loweſt, then looke when the great Wagon ſtandeth right under the North Starre of Leyen, if you take a lead or ſtick, and let it hang in your ſight right upon Leyen, and the ſaid line or ſtick alſo hangeth right betweene the Wagon & the Horſes, then Leyen is right above the Pole at the higheſt: to the contrary, when the Wagon ſtandeth above Leyen and a Line is hanged betweene the Wagon and the Horſes, and hangeth right over Leyen, then Leyen is right under the Pole at the loweſt. This alſo may be marked by the Starr that ſtandeth in the breaſt of Caſſiopea, for when it ſtandeth right under Leyen, then Leyen is right under the Pole at the loweſt, and when it is right above Leyen; then Leyen is at the higheſt above the Pole. But to know the ſtarres that are in the breaſt of Caſſiopeia, you muſt underſtand, that it is the ſecond of the five higheſt Starres that ſtand in Caſſiopeia: or if you take a ſtaffe and hold it thwart-wiſe, with one end right betweene the Wagon and the Horſe, and the middle part over the north Starre, then the other end will ſhow right upon the ſayd Starre, which ſtandeth in the breſt of Caſſiopeia, which will eaſily bee underſtood by this figure.

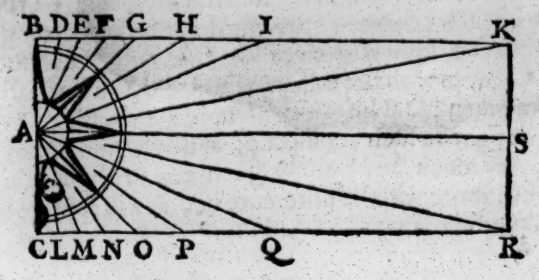


N is the North Starre: P is the North Pole, W is the Wagon, and C are the Starres of Caſſiopeia, whereof B is the breſt.

This is a certaine and a generall rule, which by no meanes can fayle, and in all places of the Earth (where we may ſee and uſe the North Starre) is without any alteration.

How

How many miles or leagues you muſt ſayle on every poynt of the compaſſe before you ſhall get a degree in breadth of the land.



WHen you ſaile right ſouth or right north on any one point of the compaſſe, as from A to B, or C, you ſaile for a degree 15 leagues
And you ſtay under the ſame Meridian.
On the point north and by eaſt or ſouth and by eaſt, as from A to B or L, you ſaile for a degree 15. and a halfe league
And then you are out of the Meridian whence you ſailed, as it were from B to D 3. leagues
Northnortheaſt and ſouthſoutheaſt, as from A to E or M for a degree 16. leagues.
You are from the Meridian whence you ſaile 6. leagues as from B to E.
Northeaſt and by north, and ſoutheaſt and by ſouth you ſaile as from A to F or N 12. leagues.
You ſhall bee without the ſame line as from B. to F. 10. leagues.
Northeaſt and ſoutheaſt you ſaile for a degree as from A to G or O 21. leagu.
You are then of the north and ſouth line whence you ſayle as it were from B to G or CO 15. leagu.
Northeaſt and by eaſt and ſoutheaſt and by eaſt, as from A to H, or P for a degree 27. leagues.
You are then out of the firſt Meridian, as from A to H, or CP 22. leagues.
Eaſtnortheaſt or eaſtſoutheaſt you ſayle for a degree as from A to I or Q, 39. and a halfe league
You ſhall be out of the Meridian, as from B to I or from C to Q 36. leagues.
Eaſt and by north or eaſt and by ſouth, as it were from A to K or R you ſaile for a degree 77. leagues and a halfe.
Then are you out of the Meridian, as from B to K or from C to R
Eaſt or weſt, as from A to *S*, you remaine between the Pole and Equinoctiall on the ſelfe ſame breadth of the earth or land.

CHAP. XX.

What is neceſſery for a Sea-faring man or Pilot further to know, together with an inſtruction to all young Sea-faring men that deſire to bee good Pilots.

THeſe aforeſaid rules although that they are ſo neceſſary and needfull for a Polot to know; that without the knowledge of them, hee can bee no good Pilot, to goe any long voyage, yet are they not ſufficient to make a good Pilot: that is all are not good pilots, that underſtand them well. For firſt a good Pilot muſt beſides them be expert at ſea, as the principall thing, which no man can learne by any ſpeculation but by his owne experience, and dealing in time he ſhall obtaine it, whereby hee ſhall know perfectly to diſpoſe all things that occurre in the Art of Navigation. It is moſt neceſſary and convenient for him to know the Lands, and how they lye to ſeaward, how farre, and upon what ſtrokes of the compaſſe the points, havens and rivers are diſtant one from the other, and ſpecially hee muſt be perfect in reckoning his Tides, that hee may know every where what Moone maketh an high water in that place, that when hee would enter into an haven or place, where hee cannot get in at a low water, then he may ſtay till it be halfe flood, or till it be high water, as time ſerveth; that hee may ſaile in; and ſave both ſhippe and goods. It is alſo very neceſſary for him to know how the ebbes and floods fall out, whether it be along by, or againſt the Land, thereby to know when the winde is ſtrong, whether he may lye in the ſtreame, or goe againſt the ſtreame, thereby to know whether it will be any hinderance or furtherance unto him, whereon many times there conſiſteth much. And alſo when a man is in the winde, whether it bee in the north ſea under England, Holland, Flanders, or in the channell of the ſea, under England, that he ſhould know to ſet his tides and courſe, that he might ſtoppe his tides. All theſe things old experienced Pilots, ought willingly to ſhew and learne young men, that are deſirous and zealous to learne the art of ſea-faring, and not to hide any ſuch thing from them, as ſome men doe without reaſon, who goe out of the way with the inſtruments, as croſſe ſtaves, Aſtrolabium and compaſſes, and will not ſuffer the common ſaylers to ſee their worke. This is by ſome done upon pride and unwillingneſſe, becauſe they would keepe the Art and knowledge onely to themſelves, and by ſome becauſe they underſtand not their proceedings well, and therefore are in feare to be aſhamed, but let not young ſeaſaring men, and ſuch as are deſirous to know the art & cunning of ſeafaring for that cauſe leave off their ſtudy therein, and to that end, when you ſaile out of any river or Haven, you muſt reckon every courſe along the reach, from tonne to tonne, or from beakon to beakon, which you muſt keepe well and perfectly, and write it in a booke, and ſometimes draw the ſcituation in manner of a Carde, and when you begin to leave the land, then you muſt take good heed of the Capes, points, ſteeples, and other markes, and how the mouth of the haven reacheth into the ſea, what depth is at the entrance of the Haven, and how deepe it is both within and without, caſt out your lead oftentimes, and let it not reſt, when you are in the havens, nor in the ſtreames, and then by ſayling out and into the rivers, you ſhall know what countreyes are flatte or ſhoring, that you may beware of them, and when you may beware of them, and when you are a comming without the Land, then you muſt earneſtly marke what hilles or downes lye thereabouts, what Churches, Towers, Caſtles, or other markes ſtand upon them, and thoſe you muſt note and counterfeit with a penne upon ſeverall ſtrokes of the compaſſe, as they change their forme of ſtanding by ſayling along by them, oftentimes uſing the lead, all which being perfectly noted, it will be a great helpe unto you to know the ſaid lands, when you come thither againe.

Likewiſe when you paſſe by any ſtrange Countrey, and ſaile along ſo neare by it, that you may plainly ſee it, then take the counterfeit or forme thereof with a penne, to know in what manner they ſhew themſelves upon ſuch ſtrokes of the compaſſe, and there let the lead fall, to ſee what depth & ground is there, which for your memory you muſt alſo note, for that which you marke in that manner will ſtay longer by you, then that which you have but ſimply ſeene, and heard of another. But when you come againſt any poynts or havens, where you meane to lade or unlade, there you muſt take good heed unto your courſe, and marke how you ſayle by that Land or Haven, and when you ſee any markes or Steeples, you muſt note them with a penne, and bring the markes and points both well together, thereby to goe right into the river, and to guide you by the lead til you be in, and when you are within, and at anckor, then viſite all the poynts of the haven, and note them downe with a pen cardewiſe, how they reach outward and inward, that when you come thither againe, you may enter into the ſame place againe, and know the ſcituation thereof, but when you are in the open ſea, and the winde againſt you, ſo that you lye by the winde, both on the one ſide, and the other, then you muſt marke how long you muſt lye on the one bought, or on the other, and when you muſt turne. Beſides this, you muſt ſpecially note how much the ſhippe goeth forward, and what you may ſaile in foure and twenty houres, what the

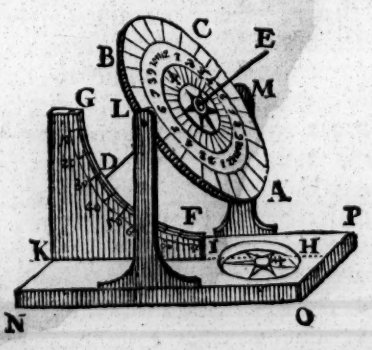
ſhip keepes, to the which end you ſhall ſometimes let the lead, or the lead line with a peece of wood hang out behind to ſee how much the ſhippe windeth, and how much the waves caſteth it out of the right courſe that it ſhould hold. This you muſt doe upon your compaſſe every evening and morning, and note in your memoriall, that you may caſt it over and peruſe it againe in the Cardes, whether in noting or marking it you ſhould have chanced to have miſtaken your ſelfe. You muſt likewiſe take heed to your ſteering, to ſee how much you muſt wind on either ſide in your Carde. And further, when you finde a good and ſure height by your croſſe ſtaffe or Aſtrolabium, that will give you a good ſecurity of your right geſſing, ſo that your compaſſing agreeth alſo with it, and then you ſhall certainely ſee in your Carde, how all points and countries lye from you, but if your geſſing and your height agree not together, then you muſt warily correct your geſſing according to your height, and ſee as neare as you can whether you ſaile either too little or too much in your geſſing, and all this muſt be done with good skill and underſtanding in your Carde, and when you come to the place, where you will ſeeke for land, then without doubt you ſhall land in ſuch a place as your inſtrument and good geſſing ſhew you.

To learne to know all courſes and ſtrokes perfectly by heart, to that end you muſt take the printed Carde, and read it often-times over, and every courſe and ſtroke which you finde to meet you muſt place together: as from Cape Finiſterre to Ciſarga, the weſt coaſt of England, the coaſt of Flanders, the coaſt of Freeſland, of Hartſhals to Schagen, and ſuch like.

Of the Tides

IT is knowne to all experienced Marriners that the ebbing and flowing of the ſea is governed by the Moone, alſo that at every new and full Moone the waters are higher which they call ſpring-tides, and at the quarters of the Moon the waters are loweſt: ſo that you may know and that certainly by former obſervation, (although the true and reall cauſe thereof is yet hidden from us) the houre of the tide, and on what poynt or ſtroke the Moone maketh high water in any particular place, to the great profit and furtherance of navigation.

To know on what ſtroke the Moone is, it may bee done in a two-fold manner, by the ſight or by marking how old the Moone is; to looke at ſome ſtroke of the compaſſe, may not be done according to the common compaſſe lying flatte or driving water compaſſe, becauſe the Horizon divideth only into equall ſtrokes, and ſheweth in what virticall Circle or Azimuth the Sun or Moone ſtandeth, but by a compaſſe that (being lifted up) according to the Superficiall part of the Equinoctiall, devideth the Equinoctiall in to equalll parts, as the common flatte driving doth the Horizon; ſuch an Equinoctiall compaſſe is made in this manner as you ſee in this figure: where the roundell ABC ſheweth



the flatte of the Equinoctiall, the gnomen ED the axeltree, of the world. The foreſaid rondel in B marked on both ſides, in the inſide with the compaſſe, and on the edge of the outſide with twice 24. ho. and in the eaſt and weſt at L and M hanging on two pinnes as it were on an axeltree, ſo that theſe being turned up and downe, and the gnomen ſet and the nether end by D and by the Quadrant FDG, that you may place him at the height of any pole.

If you ſet ſuch a compaſſe with the bottom water compaſſe, the line HK juſt north and ſouth, to wit, H to the north and K to the ſouth, and the lower end of the gnomen by ſuch a degree of the Quadrant FC, according to the height of the Pole where you are: there will the rondell AB C, ſtand even with the ſurface of the true Equinoctiall, and the gnomen ED with the axeltree of the world.

The ſight on ſuch a compaſſe, and a common one, differeth very much, and by how much nearer the Equinoctiall ſo much more will the difference be, as will appeare by this example following.

1 Example.

On the height of 50. gr. or thereabout, the ſunne being in the beginning of Cancer in the greateſt northerly declination, it is on a common compaſſe eaſt at halfe an houre paſt ſeven, and weſt at halfe an houre paſt foure, that is: he goeth from the eaſt to the weſt through the ſouth in nine houres, but from the weſt through the north to the eaſt in 15. houres.

2 Example,

At the height of 30. degrees, he comes little before halfe an houre paſt nine at the eaſt, and a little after halfe an houre paſt two to the weſt, and ſo it goeth in leſſe then five houres and a halfe from the eaſt through the ſouth into the weſt, but from the weſt through the north to the eaſt he goeth more then 18. houres.

3 Example.

The Dragonſhead being in the beginning of Aries, and the Moone in the beginning of Cancer, they make 5 gr. more declination than the ſun, and go to the foreſaid height of 30 gr. more then an houre ſooner from the eaſt to the weſt, then the *Sun*, to wit, about the ſpace of 4. houres, and againe from the weſt to the eaſt about the ſpace of 2 houres.

Under the line, the Sun having no declination, riſeth in the morning in the eaſt, and riſing remaineth eaſt untill he commeth to the Zenith and paſſeth that to the weſt, and abideth ſo deſcending weſt, till he approacheth the Horizon and is according to a flatte driving compaſſe, the one halfe of the day eaſt, and the other weſt, without comming on any other ſtroke; but it is not ſo on ſuch an Equinoctiall compaſſe. The *Sunne* and Moone both going alwayes in the ſame diſtance of time over every ſtroke, to wit, from the eaſt to the ſ. in ſix houres, and from the ſ. to the weſt in ſix houres, and againe from the weſt through the north in twice ſix houres.

Example.

Under the line, the Sun being in the Equinoctiall, I ſet the end of the gnomen E directly north, the other end D to the ſouth at the upper edge of the Quadrant at G on O, the gnomen E D ſhall lye water compaſſe, like the axeltree of the world, and the roundell right in the lead upright like the true Equinoctiall there. The Sun comming above the Horizon, the ſhaddow of the gnomen ſhall direct you to the ſixt houre in the eaſt, for the riſing, but if hee riſe beyond the edge of the rondell, and devideth that in the ſame time into equall parts with the ſhaddow, being 45 gr. above the Horizon, the ſhaddow of the gnomen will direct you to the 9 houre in the ſouth, being come into the Zenith, the ſhaddow ſhall fall juſt on the lead at the twelfe houre in the ſouth, againe 45 gr. that is, deſcending halfe way the weſt, the ſhaddow ſhall be at the third houre in the afternoone in the ſouthweſt, but coming to the Horizon the ſhaddow ſhall fall on the ſixt houre in the weſt.

As this is ſpoken of the Sun, the ſame muſt be underſtood

of

of the moone in as much as concerneth the points or ſtrokes of the compaſſe.

To reckon by the age of the moone, wee have ſet in the table following under every ſtroke two ranckes of ciphers the firſt are the dayes of the age of the moone, or the dayes paſt ſince the moone was new or at the full. The ſecond the houres and minutes of thoſe dayes, in the which the moone comes to ſuch a ſtroke, and maketh at the place ſtanding by high water.

Example.

Eight dayes after the moon hath beene new or at the full I deſire to know when the moone commeth to the ſouth, or at Embden, Enckhuyſen, and ſuch like places, makes high water (for there a north and a ſouth moone makes full ſea) I ſeek under the north and ſouth ſtroke the 8 day in the 1 column and by that in the ſecond 6 ho. 24 mi. on that then ſhall the moone come to the north and ſouth at 6 ho. 24 mi. and make high water in that place.

The tyde 48 mi. later every day, that is foure or five parts of an houre, then if you know at what houre the new or full moon make high water in any one place, you ſhall reckon from that firſt day every day foure or five parts of an houre later, and ſo you ſhall find the juſt time of high water or full ſea in that place.

Example.

When the moone is new or full, then is it at Amſterdam and Rotterdam (and whereſoever a ſouthweſt and northeaſt moone maketh full ſea) high water at three of the clocke, a day after the new or full moone at three of the clocke 24 min. two dayes after at foure of the clocke and 36 mi. and foure dayes after the new or full moon at ſix of the clock 12 minutes.

Here follow the the Tables of the Water-tydes,

VVeſt and by North, and Eaſt and by South.

da	ho	mi	
0	12	0	At the Iuttish Ilands
1	12	48	Before the Hevet, Eyder, and
2	1	36	Elve. Before Emden & Delf-
3	2	24	ziel. Before Enchuyſen, Horn
4	3	12	and Vrck. Vpon al the coaſts
5	4	0	of Fanders. Vpon the fore-
6	4	48	land. At Dover in the Pier.
7	5	36	At Bevefier on the land. At
8	6	24	Hanton on the Kay. Before
9	7	22	Schietenburgh & the Ras of
10	8	0	Blanckert.
11	8	48	At Olfernes.
12	9	36	In the Conduit.
13	10	24	At Jubleter in the Road
14	11	12	
15	12	0	

Falling of ſtreams upon the ſame ſtroke.

From the Neſſe to Beunen.

VVeſtnorthweſt, and Eaſtſoutheast.

da	ho	mi	
0	1	30	Vnder the Holy Land.
1	2	18	Before the Maſe and Goeree,
2	3	6	Before the Veere.
3	3	54	At Armewe. Vpon the flat
4	4	42	before Rammekens. Before
5	5	30	the wielings. On the Sea-
6	6	18	land Coaſts. Before the Tha-
7	7	6	mes of London
8	7	54	Before Yarmouth.
9	8	42	In Duyns on the Road
10	9	30	Neare the Dingle
11	10	18	On the weſter end of wight
12	11	6	without Callice and Swarte-
13	11	54	nes. In Blavet
14	12	42	Bunlline at the Land
15	1	30	

Falling of ſtreams upon the ſame ſtroke.

From the Gravelinghen to Beunen.

Northweſt byweſt, and Southeaſt by eaſt.

da	ho	mi	
0	12	45	within the Maſe
1	1	33	within the Veer
2	2	21	At Flushing
3	3	9	Neare Bevifier in ſea
4	3	57	In the Chamber
5	4	45	In Carmſey
6	5	33	
7	6	21	
8	7	9	
9	7	57	
10	8	45	
11	9	33	
12	10	21	
13	11	9	
14	11	57	
15	12	45	

Falling of ſtreams upon the ſame ſtroke.

From Beunen to the Somne. Alſo from Staples to Beunen

Northweſt, and Southeaſt.

da	ho	mi	
0	2	15	VVithout Fontenay
1	3	3	without Blavet
2	3	51	Vnder Bulline
3	4	39	Before the wieling
4	5	27	Before the Maſe
5	6	15	
6	7	3	
7	7	51	
8	8	39	
9	9	27	
10	10	15	
11	11	3	
12	11	51	
13	12	39	
14	1	27	
15	2	15	

Falling of ſtreams upon the ſame ſtroke

Amidſt through the Heads. From Dunkerck to Greveling From Staples to Fecam. Frō dortmout to Exmouth.

Northweſt by north, and Southeaſt by South.

da	ho	mi	
6	3	0	At Amſterdam, Rotterdam,
1	3	48	Dort and Zierickſea. Before
2	4	36	Newcaſtle, the Teſe, & Harle
3	5	24	poole. In Robbinhoods bay,
4	6	12	without the Flemish banckes
5	7	0	In the pas of Calice. Before
6	7	48	Cōquet. At peymarques groy
7	8	36	Aemeniers, Heys, Kiliaets,
8	9	24	Porthus, the river of Burdeux
9	10	12	On al the ſouthcoasts of Bri-
10	11	0	tagne, Gaſcoigne, Poictu. On
11	11	48	al coasts of Biſcaye, Galiſien
12	12	36	Portugale and Spain. On the
13	1	24	weſt coasts of Ireland. At Bo-
14	2	12	kenes or Orkeneſſe. In Hit-
15	3	0	land and Fayerhil.

Falling of ſtreams upon the ſame ſtrok Frō cape de Hagu to the Iād of Ornay. Frō Garnſey to Caſquet, from Mylford to Ramſey At Fawike in the chanel At Portlād in the Sack.

Northnorthweſt and Southſoutheaſt.

da	ho	mi	
0	3	45	Between the pas of Calice &
1	4	33	the Maſe. At Roan. In the Sor-
2	4	21	lis, Before S. Matthews point
3	5	9	In Briſtow & Crixdowne. In
4	6	57	the forde betweene Heyſant
5	6	45	before the Bos. At S. Marten
6	7	33	before Rochel before Brou-
7	8	21	wage. At Roan. In the River
8	9	9	of Bourdeaux within the chā-
9	10	57	nels ſituated on the coaſts of
10	11	45	Spain, Galiſien, the ſouth ſide
11	12	33	of Retaigne, Gaſcoigue, and
12	1	21	the weſt coaſte of Ireland.
13	2	9	
14	2	57	
15	3	45	

Falling of ſtreams upon the ſame ſtroke

From Struſaert to Deepe. From Lezard to Start. From Cape de Clare to London.

weſtſouthweſt and eaſtnortheaſt

da	ho	mi	
0	4	30	From Texel to the pas of Ca
1	5	18	lice in the fareway. Before
2	6	6	Humber before Flambrough
3	6	54	& Scherenborough Abruac.
4	7	42	In Famouth In the Mouſcho
5	8	30	le, Seven Ilands, S. Pauls with
6	9	18	out the haven, Between garn-
7	10	6	ſey & the ſeven Iſles in the fa
8	10	54	rewater. In the Breeſand.
9	11	42	without the foure. All ſouth
10	12	30	coaſts of Ireland, as Kinſael
11	1	18	Corke, Iochel, waterford
12	2	6	and Cape de cleare.
13	2	54	
14	3	42	
15	4	30	

Falling of ſtreams upō the ſame ſtroke.

Frō Oſtend to S. Catelins nes from Betehfleur to Struſaert The Breeſand out & in, From C de cleare to the Iland Saltees between London & Holmes ſo faras Breſtow From Sorlis to Englands end, From Start poynt to Portland

weſt by ſouth, and east by north

da	ho	mi	
0	51	15	In Torbay and Dartmouth.
1	6	3	In Plymmouth and Fawyke.
2	6	51	In the Sea of Galles.
3	7	39	In Famouth
4	8	27	In Mylford
5	9	15	At Ramſey in VVales.
6	10	3	Before Lin in England
7	10	51	Againſt Londen.
8	11	39	In al havens on the South
9	12	27	casts of Ireland.
10	1	15	
11	2	3	
12	2	51	
13	3	39	
14	4	27	
15	5	15	

Falling of Streams upon the ſame Stroke. From Iſle Bas to the Foute Frō Dorſey to Cape de cleare frō the Sorlis to Lezard Fromport land to wight. Frō wight to Beach orboveſier

west and east.

da	ho	mi	
0	6	0	Before Hamburgh
1	6	48	Before Bremen
2	7	36	Before the Maersdeepe or
3	8	24	Teſſel
4	9	12	At Hull
5	10	0	At Blakney and wels.
6	10	48	Before Antwerpe
7	11	36	Tergoes
8	12	24	Tergouwe
9	1	12	At Concalſo and S. Malo
10	2	0	S Paulus in the Haven
11	2	48	VVithout the Sorlis in the
12	3	36	channell.
13	4	24	
14	5	12	
15	6	0	

Falling of ſtreams upon the ſame ſtroke

From the Kiſcaſſes to Berchfleut From Englands end to Lezart.

VVest and by North, and East and by South.

da	ho	mi		
0	6	45		Falling of streams upon the same stroke.
1	7	33	Betweene Fawsick and Famouth in the channell.	
2	8	21	Amisit in the channell.	
3	9	9	At Bristow at the Key.	
4	9	57	Before S. Nicolas and Podesfemske.	
5	10	45		
6	11	33		From the Iland Bas to Marwanen along land.
7	12	21		
8	1	9		
9	1	57		
10	2	45		
11	3	33		
12	4	21		
13	5	9		
14	5	57		
15	6	45		

VVestnorthwest, and Eastsoutheast.

da	ho	mi		
0	7	30		Falling of streams upon the same stroke.
1	8	18	At the Nesse by VVitringen,	
2	9	6	in Texel in the Copevaerders Rode.	
3	9	54		
4	10	42	At Kilduyn.	
5	11	30	In the middle of the channell	
6	12	18	in the Fareway.	
7	1	6	Neare Gousfert in the chan-	From the Iland Briack to S. Malo From Bergfleur to Seynhoost.
8	1	54	nell.	
9	2	42	And betweene Mousehole &	
10	3	30	Famouth in the Sea.	
11	4	18	Neare Plymmouth in the Sea	
12	5	6	At Lezart by the Land.	
13	5	54		
14	6	42		
15	7	30		

Northwest by west, and Southeast by east.

da	ho	mi		
0	8	15	VVithout the Kiscasses in the Channell.	Falling of streams upon the same stroke.
1	9	3	By VVight in the channell.	
2	9	51	From VVight to Bevisier by the Land.	
3	10	39		
4	11	27	Vpon the west coast of the Foreland.	
5	12	15		
6	1	3	without the Flye.	
7	1	51		
8	2	39		Behinde Garnsey in the fare water. VVithin the seven Ilands.
9	3	27		
10	4	15		
11	5	3		
12	5	51		
13	6	39		
14	7	27		
15	8	15		

Northwest, and Southeast.

da	ho	mi		
0	9	0	Before the east & west Eemses.	Falling of streams upon the same stroke
1	9	48		
2	10	36	Before the Flye.	
3	11	24	Before the Scholbalgh.	
4	12	12	On all the Freese coasts.	
5	1	0	Vpon the Freese and wieringer Flack.	
6	1	48		
7	2	36	Before Crammer winterduyn	In the wyke of Benyte. Betweene Morliax and the Treacle pots.
8	2	24	and Yarmouth.	
9	4	12	within the Seyne.	
10	5	0	At the east end of VVight.	
11	5	48	In the Rasse of Portland.	
12	6	36	Betweene Garnsey and the Kiscasses.	
13	7	24		
14	8	12		
15	9	0		

Northwest by north, and Southeast by South.

da	ho	mi		
6	9	45		Falling of streams upon the same stroke,
1	10	33	The Needles of wight.	
2	11	21	In the channell by wight.	
3	12	9	The Kiscasses.	
4	12	57	At Garnsey in the channell.	
5	1	45	Neare Leystaff & Yarmouth	
6	2	33	without the banks.	
7	3	21	At Tergouwe.	
8	4	9	At the wolfs-horne.	Before Concallo, before the Iland of S. Michael in the Creeke
9	4	57		
10	5	45		
11	6	33		
12	7	21		
13	8	9		
14	8	57		
15	9	45		

Northnorthwest and Southsoutheast.

da	ho	mi		
0	10	30	At Olfersnes and Harwidge without the banks.	Falling of streams upon the same stroke
1	11	18		
2	12	6	At Leystaff in the Rode.	
3	12	54	Yarmouth in the Road.	
4	1	42	Before the Thames of Londō	
5	2	30	At Margat.	
6	3	18	At wight within	
7	4	6	At Beuten Deepe and Seynhooft.	From Bergfleur to Alnonga. From C Dorsi to the Iland Dardan.
8	4	54		
9	5	42	In the Fosse of Caen.	
10	6	30	At Struysaert, and all the Coasts of Normandy and Piccardy.	
11	7	18		
12	8	6		
13	8	54	At S. Helena & Calveroort.	
14	9	42		
15	10	30		

North by west, and south by east.

da	ho	mi		
0	11	15		Falling of Streams upon the same Stroke.
1	12	3	Betweene Cripple-sand, and the Kreyl.	
2	12	51		
3	1	39	VVithin at Olfersnes.	
4	2	27	At Hampton.	
5	2	15	At Porchmouth, and at wolfers horne.	From S. Matthews point unto Backovens From Fontenay to S. Matthewes poynt
6	3	3		
7	4	51	At Calveroort in wight.	
8	5	39	Before the haven of Caen.	
9	6	27	within the Thames of London.	
10	7	15		
11	8	3		
12	8	51		
13	9	39		
14	10	27		
15	11	15		

CHAP. XXII.

How to finde the age of the Moone.

TO doe this without an Almanach, you must know the Epact or Key of the yeare, and that you shall finde by the golden number, and the golden number thus: looke how many yeare there are past from the yeare of our Lord, 1500 and these divide by 19 and what remains is the golden number of that yeare, if there remaine nothing, the golden number is 19.

Example.

I desire to know the golden number of the yeare 1628, setting the 1500 a side, I devide the 128 yeares with 19, I find six times, and the remainder is 14. Then the golden number of the yeare 1628.

The golden number increaseth every yeare with the beginning of the yeare with one, as in the yeare 1629 it will bee 15 in the yeare 1630, 16, and so forth to 19, after that againe 1, 2, 3, &c. The Epact changeth euery yeare on the first of March increasing with 11 to 30, but being more then 30, you must leave that 30, and the remainder is the Epact. You shall finde it by the golden number thus: tell the golden number on the 3 joynts of your thumme, beginning with one at the lower joynt, unto the golden number of your yeare proposed, doth end this kind of telling at the lower joynt, and then the Epact and the golden number are all one: but if it end on the second joynt, adde 10, if on the third joynt, adde 20 by the same golden number, that number, that number is the Epact of that yeare.

Example.

I desire to know the Epact of the yeare 1628, the golden number is 14 telling on the 3 joynts of the thumme beginning with one at the lower joynt, the telling endeth with 14 on the middle joynt, adding to that 10 you shall have 24 for the Epact of that yeare.

After the old stile, the golden number is the selfe same with the new stile, but the Epact is 10 more, therfore if you adde 10 to the Epact of the new stile, you shall have the Epact of the old stile, as for the yeare 1628, 10 to 24 (the Epact of the new stile) comes 34 substract 30, there remaines 4, the Epact of that yeare according to the old stile.

But to find the Epact without telling, is the golden number to know both according to the old and new stile, looke on this table following, where they are set the one by the other.

Golden Number.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
New Epact.	1	12	23	4	15	26	7	18	29	10	21	2	13	24	5	16	27	8	19
Old Epact.	11	22	5	14	25	6	17	28	9	20	1	12	23	4	15	26	7	18	29

The Epact being knowne, you shall adde it to the number of the moneths that are past from March to the moneth you are in, the same moneth being reckoned with it, if this brings forth 30 then it is new moon the first day of the same moneth, but as much as it is lesse then 30 so many dayes you have to the new moone.

Example.

In the yeare 1630, I desire to know when the Moone shall bee new in the moneth of August, the Epact of that yeare is 16, adding to this 6 for the number of the moneths since

ſince March (the moneth of Auguſt being included) it makes 22, there want 8 to make it 30 therefore, the moone ſhall be now 8 dayes at this, that is the 8 of Auguſt.

The Epact, the number of the moneths paſt from March and the day of the moneth being added, ſuch a number, (or whatſoever it brings forth, more then) 30 it ſheweth the age of the moone.

1 Example.

To know the age of the moon on the 12 of Auguſt 1530 I adde the Epact 16 to 6 the months paſt, and 12 for the 12 dayes, they make 34 take 30 from it, there remaines 4 for the age of the moone on that day, but this is to bee underſtood after the new ſtile.

To finde out eaſily without caſting up the time the new moon, we have here adjoyned an Almanach for 16 yeares next enſuing, calculated by the meridian of Amſterdam, ſhewing the day and houre of every new and full moone, together with the quarters; the uſe of it is thus: by the moone in every moneth there are two columnes of ciphers, the firſt ſheweth the day of the moneth, the ſecond the houre and mi. of the new and full moone, to reckon from the noone of the ſame day, to the noon of the day following according to the uſe and cuſtome of Aſtronomers.

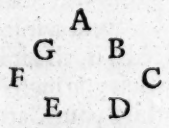
Example.

I would know in the yeare 1633 in the moneth of July, on what day and houre the moone will bee new, and I finde the new moone on the 5 day, 27 houres telling from noone tide and this runne to the next day in the morning at nine of the clock.

To know what day of the weeke that will bee, you muſt firſt know the Dominicall letter of that yeare, and with what letter each moneth beginneth, the Sundayes letter you ſhall find under the Almanach of each yeare, the leap yeare hath two, the firſt you ſhall uſe to the 24 of Febrnary, the other to the end of the yeare, every moneth beginneth with ſuch a letter as this table following ſheweth.

January, February, March.	begin with	A D D	April, May, Iune	begin with	G B E
Iuly, Auguſt, September	begin with	G C F	October. Novemb. Decemb.	begin with	A B E

For as much as Iuly beginneth with a G you ſhall begin to tell at ground to 5, and that fall out in E, that is the third day after B the Dominicall letter of that yeare, and ſo it will be wedensday, and ſo in all the other. In the Leape yeare you muſt tell both the 24 and 25 on F, becauſe the 25 day and 24 were added on F.



CHAP. XXIII.

The uſe of the North ſtar when you take the height by the wayters which are on the northern hindern-wheele of the great wagon.

FOr as much as many Pilots know not the names of many of the fixed ſtarres, and therefore follow the uſe of the north ſtar according to the poynts of the compaſſe: we have for the uſe of theſe men, made two ſorts of tables the one according to the waters (which we have mended, (the other according to the northern hinder wheele of the great Wagon, both of them on the foure ſttokes north, ſouth, eaſt and weſt, and in as much as in this kinde or worke the north ſtarr hath a different ſtanding in ſundry heights of the Pole, we have calculated the tables agreeing to divers heights or latitudes from 10 degrees to 10 degrees as followeth.

At the height of 10 degrees.

When the brighteſt of the wayters ſtandeth in the
- Eaſt then is the north ſtar under the Pole 1 degree 28 minutes.
- North, then it is two degrees 48 mi. under the Pole.
- Weſt 1 degree two and twenty min. above the Pole.
- South two degrees 18 minu. above the Pole.

At the height of twenty degrees.

When the brighteſt of the wayters ſtandeth in the
- Eaſt the north ſtar is 1 degree 31 mi under the Pole.
- North, the north ſtar is two degrees 18 minutes under the Pole.
- Weſt, the north ſtar is 1 degree 19 minutes above the Pole.
- South, the north ſtar is two degrees 19 minutes above the Pole.

At the height of 30 degrees.

When the brighteſt of the wayters ſtandeth in the
- Eaſt, the n. ſtar is 1 degree 25 mi. above the Pole.
- North, the n. ſtar is two degrees 18 minutes under the Pole.
- Weſt, the n. ſtar is 1 degree 14 min. above the Pole.
- South, the n. ſtarr is two degrees 19 min. higher than the Pole.

At the height of 40 degrees.

The wayters in the
- Eaſt, the n. ſtar 1 degree 39 mi. under the Pole.
- North, the n. ſtar two degrees 10 mi below the Pole.
- Weſt, the n. ſtar is 1 degree 14 min. above the Pole.
- South, the n. ſtar is 2 degrees 19 mi. above the Pole.

At the height of 50 degrees.

The wayters in the
- Eaſt, the n. ſtar is 1 degree 44 min. below the Pole.
- North, the n. ſtar is 1 degree 3 min. below the Pole.
- Weſt, the n. ſtar is 1 degree 3 min. above the Pole.
- South, the n. ſtar is two degr. twenty min. above the Pole.

At the height of 60 degrees.

The wayters in the
- Eaſt, the n. ſtar, is 1 degree 52 min. under the Pole.
- North, the n. ſtar is two degr. 16 mi. below the Pole.
- Weſt, the n. ſtar is 53 min. higher than the Pole.
- South, the n. ſtar is two degrees 20 min. above the Pole.

At the height of 70 degrees.

The wayters in the
- Eaſt, the n. ſtar is two deg. 5 mi. under the Pole.
- South, the n. ſtar is two degr. 15 mi. under the Pole.
- Weſt, the n. ſtar is 32 min. above the Pole.
- South, the north ſtar is two degrees two and twenty minutes above the Pole.

At the

At the height of 80 degrees.

The wayters in the
- East the north ſtar is 2 degrees 33 minutes under the Pole.
- North, the n. ſtar is two degrees 12. mi. under the Pole.
- Weſt the n. ſtar is 33 min. under the Pole.
- South the n. ſtar is 2 degrees 44 mi. min. higher then the Pole.

The uſe of the North ſtarre, agreeing with the northermoſt hinder wheele of the Wagon.

At the height of 10 degrees.

when the northermoſt Wheele of the wagon ſtandeth in the
- East then is the n. ſtarr higher then the Pole 1 gr. 1 mi.
- North, the north ſtar is two gr. 27, minutes above the Pole.
- Weſt, the north ſtar is 1 gr. 13 min. lower then the Pole.
- South, the n. ſtar is under the Hori- out of ſight.

At the height of 20 degrees.

The northern wheele of the Wagon.
- East the n. ſtar is 54 mi. higher then the Pole.
- North, then n. ſtar is 2 gr. 27 min. under the Pole.
- Weſt the n. ſtar is 1 gr. 26 min. lower then the Pole.
- South, the north ſtar is 2 gr. 27 min. above the Pole.

At the height of 30 degrees.

The nothermoſt hinder-wheele of the Wagon.
- East, the n. ſtar is 47 mi. higher then the Pole.
- North, the n. ſtar is two gr. 27 min. under the Pole.
- Weſt, the n. ſtar is 2 gr. 26. min. above the Pole.
- South, the n. ſtarr is 2 gr. 27 mi. under the Pole.

At the height of 40 degrees.

The northermoſt hinder wheele.
- East, the n. ſtar is 38 mi. above the Pole.
- North, the n. ſtar 2 gr. 27 mi. under the Pole.
- Weſt, the n. ſtar is 1 gr. 34 min. below the Pole.
- South, the n. ſtar is 2 gr. 28 min. above the Pole.

At the height of 50 degrees.

The northermoſt Wheele.
- East, the n. ſtar is 24 min. above the Pole.
- North, the n. ſtar is 2 gr. 34 min. under the Pole.
- Weſt, the n. ſtar is 1 gr. 45 min. under the Pole.
- South, the n. ſtar is 2 gr. 28 min. above the Pole.

At the height of 60 degrees.

The northermoſt hinder wheele.
- East, the n. ſtar, is 2 min. above the Pole.
- North, the n. ſtar is two degr. 26 mi. under the Pole.
- Weſt, the n. ſtar is 2 gr. 1 min. under the Pole.
- South, the n. ſtar is 2 gr. 28 min. above the Pole.

At the height of 70 degrees.

The northern hinder Wheele.
- East, the n. ſtarr is 14 min. under the Pole.
- South, the n. ſtar is two gr. 25 min. under the Pole.
- Weſt, the n. ſtar is 2 gr. 22 min. under the Pole.
- South, the north ſtarr is two gr. 29. minutes above above the Pole.

At the height of 10 gr. the north hinder wheele of the great Wagon cannot come from the Horizon at the ſame high with the northſtar.

CHAP. XXIV.

Of the CARDE.

IT is knowne to every man, eſpecially to thoſe that underſtand the grounds of Coſmographie, that the earth with the waters make one complete round body, and therefore it cannot be, that you ſhould ſet forth the ſame perfectly in a plane or Carde (either in the hole or in part) but there will be ſome want, for it is unpoſſible to make a plaine agree with a round forme in all the parts thereof. So that your common cardes many times faile in truth, eſpecially thoſe that comprehend great and long voyages by ſea, and far from the Equinoctiall; but the Maps which are commonly uſed in this Countrey, of the Eaſterly and Weſterly Navigation, are without fault, or at leaſt the errors are ſo little that they hinder not.

They are very fit inſtruments to be uſed at ſea, & our forefathers, which have invented them, have brought no ſmall profit and utility to Mariners. The fault of them conſiſt in this, and thus it may be ſeene: If you would ſaile a triangle, the 2 firſt ſides will bee ſailed on their ſtrokes and diſtances; but from the 2 to the 3 place (that is the 3 ſide of the triangle) it will faile both on the ſtrokes and diſtances.

Example.

I ſayle from the Lizard a ſtraight courſe to the Ilands of Canary, and from thence againe to the Ilands of Corvo and Flores, on which foreſaid ſtrokes and diſtances my Maps are very complete and perfect. But if I would ſaile againe from Corvo to the Lizard, from whence I firſt ſailed, the Card wil ſhew me an imperfect way, to wit it will ſeeme farther wide in the Card, then indeed it is, alſo it will differ on the poynts of the Compaſſe: ſo that you muſt direct your courſe more northerly then that which your Card directeth.

In ſo ſhort a journey, as this aboveſaid, it is not much obſerved, neither is it worth the obſervation: but thoſe that ſail to the Weſt-Indies, ſhall ſoone perceive it; when they ſet ſaile, they take their courſe far to the ſouth, and there they finde their Cards of a fit length, becauſe the Cards are fitted to it; But in their returne, when they take their courſe northward, they finde the way much ſhorter then their Cardes ſhew them.

This

This is the cauſe: All the lines in the Card from north and ſouth are drawne every where at an equall diſtance each from other, from the Equinoctiall to the Pole; but on a globe which is made round like the earth, they are not of an equal diſtance, but the more northerly they come, ſo much the nearer they come each to other. So that two ſtrokes from north to ſouth at the latitude of 60. degrees, are but halfe ſo wide from one another, as they are at the Equinoctiall, and at the Pole they touch each other. Therefore two ſhipps being under the Equinoctiall diſtant from one another two hundred leagues, they may both ſayle directly north without hinderance, comming to the height of 60 gr. but being 100. leagues from each other, and that following the ſame courſe, they would in the end meet each other under the pole, but if you direct ſuch two ſhips by a plaine Carde, they will be alway at equall diſtance, by which it ſufficiently appeales, that all places lying far north, are much to wide, unleſſe they be drawne in, which cannot be done, but you muſt make other places more faulty.

Of the variation of the compaſſe, and how you ſhall find the turning aſide of the needle or variation.

THe needle or the ſtile under the Compaſſe, touched with the Load-ſtone, draweth to divers places diverſely, in ſome places directly to the north, in other places it bendeth to the eaſt, and in other towards the weſt; As for Example, at the Ilands of Corvo and Flores (the moſt weſt ſterne of the Flemiſh Ilands.) At Helmſhuy a little on the weſt ſide of the north Cape. About 30. leagues weſt wards from the ſouth corner of *Spitsburg*, on the eaſt ſide of the Cape of good Hoope, at Cabo das Aguilhas, and at other places, as well in the Eaſt as in the Weſt-Indies, the needle directeth you juſt north. Weſtwards from the Flemmiſh Ilands on the eaſt ſide of the cape, at Nova Zembla, on the coaſt of Spitsburgh, and on the eaſt ſide of Cape das Aguilhas on all the Indian *Sea*, it ſtandeth from the north weſtwards, and in the eaſt ſide of the Flemmiſh Iland, on the weſt ſide of the Cabo de bona Eſperance and other places more, it ſtandeth from the north eaſtwards. The variation of the needle is two-fold, to wit, from the north to the weſt, and from the north to the eaſt, and theſe are againe of two ſorts, the increaſing and decreaſing weſtward, in like ſort the increaſing and decreaſing eaſtwards. The increaſing eaſtward and weſtward, is, as you ſayle from eaſt to the weſt, increaſing or diminiſhing, that which decreaſeth, may bee playnely underſtood by this Example.

1 Example.

If you ſaile from the ilands Corvo and Flores, where the needle ſtandeth right eaſtward on the coaſt of Spaine, the needle beginneth by little and little ſo much more) to wind toward the eaſt, untill you have ſayled the Strait of Gibraltar, where it is at the higheſt (as they hold) 13 gr. that is increaſing northeaſtering.

From thence ſayling alongſt the Middlelands Sea, it beginneth to decreaſe, untill you come at the place called the Mouth of the Venetian Gulfe, where it vaniſheth, and the needle againe draweth directly north, this they call decreaſing north eaſtering.

2 Example.

If you ſaile from the Cabo das Aguillas (where the needle ſtandeth directly north) eaſtwards to the Indies, the needle beginneth to decline from the north towards the weſt, untill you come a little on the eaſt ſide of the Iland S. Brandaon, where it is at the height of 22 gr. or two whole ſtrokes that is increaſing northweſtering.

Sayling from thence, you begin to decreaſe, till you are at the ſouth point of Celebes, where againe the needle draweth right, this is called decreaſing northweſtering.

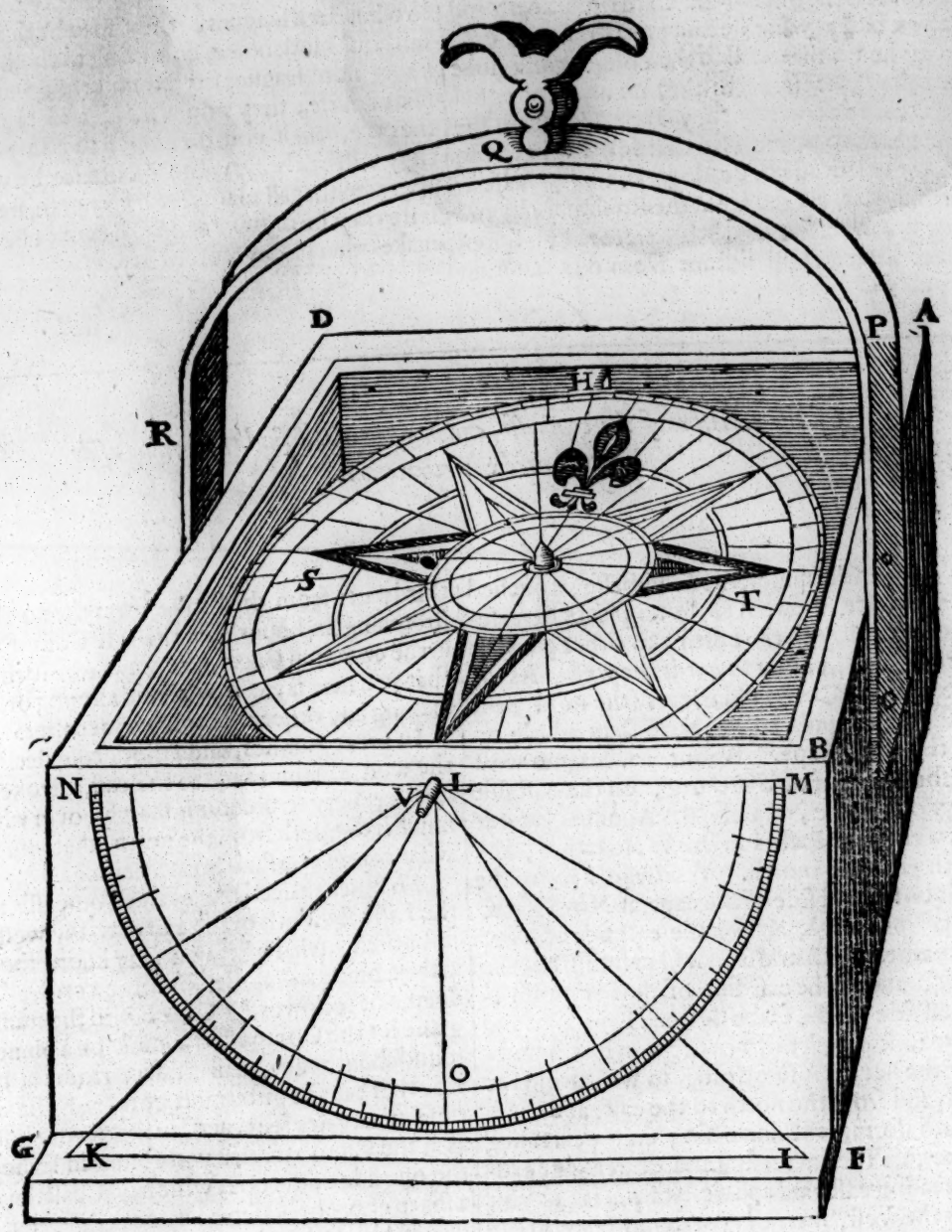
For the common Navigation from this Countrey to the eaſt, north, England, France, or Spaine the ſtiles (to direct the Lilly right north) ſet faſt under the roſe, about two third parts from the ſtroke, from the north to the eaſt. The ſtretching and courſe of the one Country toward the other in the common Cards, are drawne by ſuch a Compaſſe, ſo that you may ſayle it without altering of the Compaſſe, or ſhaking any other reckoning or account.

In great journies, when the needle declineth ſometime to the weſt, and ſometime to the eaſt, a ſtroke or two, or more, it is neceſſary to obſerve it ſharply, over what ſide, and how much it ſtandeth from the north, that you may be certaine, what courſe you ſhall hold in ſailing.

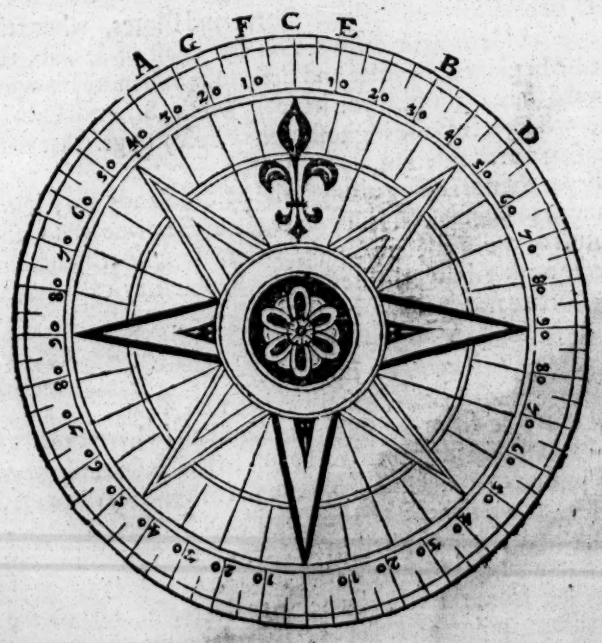
To find the declining of the Compaſſe, that is, how much the Lilly ſtandeth to the eaſt or to the weſt, ſeeke firſt the juſt north, (that by it you may know the declining) thus make a box quadrangle, or foure cornered, and reaſonable deep, as it followes ABCDEFG, in the midſt of it under in a glaſſe let the Compaſſe ſwimme on a pinne, ſo that it bee round about at an equall diſtance from the box, as ST, divide that on the outermoſt corner of the Roſe into foure times ninety degrees, and lay the needle juſt under it, even as at the Compaſſe that you follow in ſayling. Within on the one ſide of the box, which wee call the north ſide, make a ſharp coper or braſen corner or edge, juſt in the midſt between A & D, lifted upon the ſide AD, ſo that the compaſſe may paſſe cloſe by it, without lett, as H, without on the ſouth ſide BCFG, at the under corner make a little beame, as FG, about halfe an inch broad at the upper-edge, in each ſide make a hole at I and K, both equally diſtant from the flat BCFG, and draw from the one to the other a right line which may be plainly ſeene, as I K; at the upper-edge in the middeſt betweene BC, make a pinne as long as the under-beame, like L, and juſt ſo farre as the line IK on the beame, ſtandeth from the flat, juſt ſo far make from the flat a ſcoach in the foreſaid pinne L, after that make a ſtring or a ſmooth cord faſt to each end in the foreſaid holes of the litle beame as at IK, and with the midſt of the foreſaid pinne at V, ſo that the ſtring being ſtretched hard, may ſtand at an equall diſtance from the flat in all places BCFG, from the poynt L make a halfe circle, a little lifted out of the flat, as MDN, ſo that the line MN be equally diſtant at all points with the upper edge of the box, or the beame and the line LO (deviding the halfe circle into two quadrants) ſquare right on IK, divide the halfe circle at the inner corne in twice ninty degrees.

Laſtly, make a ring of braſſe or wood as PQR, that you may hang the box on it, that the uppermoſt flat A B C D may hang Water-compaſſe, the ſouth ſide BCFG, and the edges B F C G, and the line LO juſt in the lead, this being thus prepared, the uſe followeth.

Three or foure houres before noone, more or leſſe you ſhall turne the corner CG, towards the *Sun*, ſo that the ſhaddow of the one ſide of the ſtring LK may fall right along the line KI, and then looke the degree of the compaſſe commeth to ſtand by the braſen edge H, which I ſuppoſe to be the 30. gr. of north and by weſt, as in the ſecond Figure following at A.



At the ſame inſtant, you ſhall obſerve the height of the Sun at the ſhadow of the pinne L, in halfe circle MON, or you ſhall take it more truely and certainly with the croſſe ſtaffe or Aſtrolabe, that which we take here to be 25. gr. we ſet it down for memories ſake. Further you ſhall ſtay ſo long in the afternoone, untill the Sun be come to the ſame height of 25. gr. then turne the edge BF, juſt againſt the Sunne, ſo that the ſhaddow of the ſide of the ſtring LI may fall right along the line IK, and look what degree of the compaſſe commeth to ſtand by the coper or braſen edge H, which I ſuppoſe to be the 30 gr. for the north, toward the eaſt, as on B, this being ſo in the middeſt of the circle AB, as at C, is the north point which you deſire, and if the Lilly be directed right to it, then hath that cõpaſſe no variation, but directeth right north. But if you taking aforeſaid in the afternoone bee not found the thirtieth, but the fiftieth degree from the north towards the eaſt, as at D, in ſuch cauſe you ſhall devide the circle AD, being 80 gr. at E, into two parts, ſo that AE and ED may each of them contayne 40 gr. which being ſo, E will be the north point, and ſuch a compaſſe turneth from the north to the weſt from E to C 10 gr. which is very neare a whole ſtrook. But if in the foreſaid taking in the afternoon the coper or braſen edge had ſtood 10. gr. on the weſt ſide of the Lilly or flour deluce, as at F, then you muſt divide the circle AF, containing 20. into two parts at G; ſo that AG and GF might each of them containe tenne degrees, which being ſo, G will be the north poynt, and the Lilly of ſuch a compaſſe wndeth toward the eaſt from the north 20. gr. namely from C to G, and thus it will bee in all other figures. This is to be obſerved: that you may take the height before the noon twice, thrice, foure times or more, at divers heights of the Sunne; As for Example: The firſt time when the Sun is at the height of 10. gr. the ſecond time at the height 15 gr. the third at 20. gr. and in the afternoone at the ſame height and bee comparing the one taking with the other, you ſhall



finde how they agree each with other, thus finding alwayes the ſame north poynt, you ſhall bee certaine that you have taken truly and right.

ALMA-

Almanach for the yeare 1639.

	New ſtile. Moone.	da.	ho.	mi.
	new moon	3	17	38
	firſt quart.	11	21	55
January	full moon.	19	2	40
	laſt quart.	25	17	50
	new moon	2	11	5
	firſt quart.	10	15	41
	full moon.	17	13	3
Februa.	laſt quart.	24	5	53
	new moon	4	6	33
	firſt quart	12	5	47
	full moon.	18	22	11
March.	laſt quart.	25	20	3
	new moon	2	23	48
	firſt quart.	10	16	2
	full moon.	17	6	52
April.	laſt quart.	24	12	0
	new moon	2	14	56
	firſt quart.	9	23	52
	full moon.	16	15	56
May.	laſt quart.	26	23	3
	new moon	1	3	51
	firſt quart.	8	4	15
	full moon.	15	2	10
June.	laſt quart.	22	22	14
	new moon	30	14	37
	firſt quart.	7	8	53
	full moon.	14	13	41
July.	laſt quart.	22	15	4
	new moon	29	23	29
	firſt quart.	5	14	35
	full moon.	13	3	11
Auguſt.	laſt quart.	21	9	54
	new moon	28	7	25
	firſt quart.	3	22	37
	full moon.	11	18	38
Septēb.	laſt quart.	19	21	5
	new moon	26	15	27
	firſt quart.	3	10	8
	full moon.	11	11	46
Octob.	laſt quart.	19	9	6
	new moon	21	0	29
	firſt quart.	2	1	17
	full moon.	10	5	41
Novēb.	laſt quart.	17	19	19
	new moon	24	11	18
	firſt quart.	1	20	7
	full moon.	9	23	14
Decēb.	laſt quart.	17	4	4
	new moon	24	0	7
	firſt quart.	31	17	3

The Golden Number is 6, the Epact is 26, the Circle of the Sun 24, the ſundayes letter is B, Romane indict 7, the after-winter 10 weekes and 1 day, Quadrageſ. 13 of March, Eaſter the 24 of Aprill, Aſcenſion the of June, Whitſunday the 12 of Iune, Adven: the 27 of November, 5 Eclipſes 3 of the ſun, of the moone, the middlemoſt of the ſun ſhall bee ſeene of us the firſt of June at 3 ho. 65 min. but all the reſt will be under our Horizon.

Almanach for the yeare 1640.

	New ſtile. Moone.	dā.	ho.	mi.
	full moon.	8	14	46
	laſt quart.	15	12	15
Januarie	new moon.	22	15	9
	firſt quart.	30	13	15
	full moon.	7	3	53
	laſt quart.	13	20	45
Februa.	new moon.	21	6	57
	firſt quart.	29	11	26
	full moon.	7	14	32
	laſt quart.	14	6	10
March.	new moon.	21	23	46
	firſt quart.	30	3	39
	full moon.	5	23	25
	laſt quart.	12	16	51
April.	new moon.	20	16	41
	firſt quart.	28	15	36
	full moon.	5	7	23
	laſt quart.	12	5	9
May.	new moon.	20	8	40
	firſt quart.	28	0	7
	full moon.	3	15	10
	laſt quart	10	19	24
June.	new moon.	18	23	0
	firſt quart.	26	6	10
	full moon.	2	23	32
	laſt quart.	10	12	13
July.	new moon.	18	11	12
	firſt quart.	25	11	17
	full moon.	1	9	19
	laſt quart	9	5	33
Auguſt.	new moon.	16	21	50
	firſt quart.	23	16	40
	full moon.	30	21	12
	laſt quart.	7	23	42
Septēb.	new moon.	15	7	26
	firſt quart.	21	23	31
	full moon.	29	12	0
	laſt quart.	7	15	48
Octob.	new moon.	14	16	55
	firſt quart.	21	8	58
	full moon.	29	5	31
	laſt quart.	6	8	5
Novēb.	new moon.	13	2	46
	firſt quart.	19	21	41
	full moon.	28	0	49
	laſt quart.	5	21	8
Decēb.	new moon.	12	13	20
	firſt quart.	19	14	24
	full moon.	27	19	54

The golden number is 7, the Epact 7, the circle of the Sun, 25, ſunday leter AG, the Roman Indiction 8, the after winter 8 weekes, and Quadrageſſim. the 26 of February, Eaſterday the 8 of Aprill, Aſcenſion the 27 of May, Adven. the 2 of December, we have only this yeare two Eclipſes of the ſunne, both under our Horizon, the firſt on the 20 of May at 8 ho. 35 mi. the ſecond 13 of November at 3 ho. 4 mi. and they ſhall be ſeen in the ſouth parts of America & Peru.

Almanach for the yeare 1641.

	New ſtile. Moone.	da.	ho.	mi.
	laſt quart.	4	8	5
	new moon.	11	0	44
January	firſt quart.	18	10	26
	full moon.	26	12	57
	laſt quart.	2	16	57
	new moon.	9	13	15
Februa.	firſt quart.	17	7	57
	full moon.	25	3	20
	laſt quart.	4	0	40
	new moon.	11	2	54
March.	firſt quart.	19	4	31
	full moon.	26	15	0
	laſt quart.	2	7	50
	new moon	9	17	46
April.	firſt quart.	17	22	8
	full moon.	25	0	23
	laſt quart.	1	15	28
	new moon.	9	9	25
May.	firſt quart.	17	12	5
	full moon.	24	8	8
	laſt quart.	31	0	34
	new moon	8	1	4
June.	firſt quart.	15	22	58
	full moon.	22	15	9
	laſt quart.	29	12	12
	new moon.	7	16	0
July.	firſt quart.	15	7	14
	full moon.	21	22	16
	laſt quart.	29	2	41
	new moon.	6	5	53
Auguſt.	firſt quart.	13	13	53
	full moon.	20	6	43
	laſt quart.	27	19	53
	new moon	4	18	49
Septēb.	firſt quart.	11	19	49
	full moon.	18	17	29
	laſt quart.	26	14	53
	new moon	4	6	54
Octob.	firſt quart.	11	2	8
	full moon.	18	7	33
	laſt quart.	26	10	20
	new moon	2	18	25
Novēb.	firſt quart.	9	10	11
	full moon.	17	0	21
	laſt quart.	25	12	8
	new moon	2	5	19
Decēb.	firſt quart.	8	21	0
	full moon.	16	19	26
	laſt quart.	24	21	14
	new moon	31	15	48

The Golden number of this yeare is 8. the Epact 18. The Circle of Sun 2. Romane Indiction 9, Sunday letter F, the after-winter 6 w. 5. da. Quadrageſ. the 16. of Febr. Eaſterday the 21 of March, Aſcenſion the 9. of May, Whitſunday the 19 of May, Advent the 1 of Decemb. There will be 4 Eclipſes, two of the moon, 2 of the Sun, the 1 of the Moone, on the 18 of October, at 7 ho. and 44 mi. the other under our Horizon.

Almanach for the yeare 1642.

	New ſtile. Moone.	da.	ho.	mi.
	firſt quart.	7	11	22
	full moon.	15	14	53
January.	laſt quart.	23	10	36
	new moon.	30	1	11
	firſt quart.	6	4	44
	full moon.	14	8	6
Februa.	laſt quart.	21	20	53
	new moon.	28	13	0
	firſt quart.	7	23	54
	full moon.	16	1	0
March.	laſt quart.	23	4	21
	new moon.	30	0	30
	firſt quart.	6	19	23
	full moon.	14	14	0
April.	laſt quart.	21	10	16
	new moon.	28	13	5
	firſt quart.	6	13	37
	full moon.	14	0	17
May.	laſt quart.	20	16	0
	new moon.	28	2	32
	firſt quart.	5	5	47
	full moon.	12	7	21
June.	laſt quart.	18	22	51
	new moon.	26	16	49
	firſt quart.	4	19	26
	full moon.	12	15	14
July.	laſt quarr.	18	8	42
	new moon.	26	7	46
	firſt quart.	5	15	2
	full moon.	9	22	7
Auguſt.	laſt quart.	16	20	2
	new moon.	24	23	14
	firſt quart.	3	22	22
	full moon.	8	6	10
Septēb.	laſt ſuart.	15	11	19
	new moon.	23	14	39
	firſt quart.	30	23	47
	full moon.	7	16	15
Octob.	laſt quart.	15	5	30
	new moon.	23	5	26
	firſt quart.	30	5	44
	full moon.	6	5	58
Novēb.	laſt quart.	14	2	9
	new moon.	21	19	39
	firſt quart.	28	13	34
	full moon.	5	20	24
Decēb.	laſt quart.	13	23	46
	new moon.	21	7	13
	firſt quart.	27	23	1

The Golden number is 9, the Epact 29, the Circle of the ſun ſeven & twenty the Roman Indiction 10, the ſunday letter E the after Winter 9 weekes 4 dayes, Quadrag. the 9 March, Eaſter the 20 of April, Aſcenſiō the 29 of May, Advent on the 30 of December, 4 Eclipſes 2 of the ſun, 2 of the moone, of the which bothe of the Moone ſhall be ſeen of us the firſt the 14 of April at 13 ho. 38 mi. thoſe of the ſun ſhall not be ſeene in our Hemiſphere, the ſecond of the Sunne ſhall bee ſeene about the Straights of Magellan.

Almanach for the yeare 1643.

New ſtile.

Moone.		da.	ho.	mi.
January	full moon.	4	14	6
	laſt quart.	12	19	10
	new moon	19	18	16
	firſt quart.	26	10	52
Februa.	full moon.	3	9	4
	laſt quart.	11	10	54
	new moon	18	4	16
	firſt quart	25	9	42
March.	full moon.	5	3	51
	laſt quart.	12	22	43
	new moon	19	13	55
	firſt quart.	26	16	32
April.	full moon.	3	20	51
	laſt quart.	11	6	57
	new moon	17	23	31
	firſt quart.	25	9	45
May.	full moon.	3	10	58
	laſt quart.	10	12	57
	new moon	17	9	40
	firſt quart.	25	3	43
June.	full moon.	1	22	19
	laſt quart.	8	18	4
	new moon	15	20	39
	firſt quart.	23	21	16
July.	full moon.	1	7	20
	laſt quart.	8	16	47
	new moon	15	9	1
	firſt quart.	23	13	20
Auguſt.	full moon.	30	15	11
	laſt quart.	6	6	32
	new moon	13	23	46
	firſt quart.	22	3	15
Septēb.	full moon.	28	22	51
	laſt quart.	4	16	16
	new moon	12	16	10
	firſt quart.	20	16	17
Octob.	full moon.	27	7	9
	laſt quart.	4	5	0
	new moon	12	9	30
	firſt quart.	20	0	54
Novēb.	full moon.	26	16	48
	laſt quart.	2	22	5
	new moon	11	2	31
	firſt quart.	18	9	46
Decēb.	full moon.	25	4	15
	laſt quart.	2	18	53
	new moon	10	18	10
	firſt quart.	17	18	16
	full moon.	24	18	0

The Golden Number is 10, the Epact is 10, the Circle of the Sun 28, the ſundayes letter is D, Romane indict 11, the after winter 7 weekes and 3 dayes, Quadrageſ. 22 of Februarie, Eaſter the 5 of Aprill, Aſcenſion the 14 of May, Whitſunday the 24 of May, Adven: the 29 of November, 4 Eclipſes 2 of the ſun, 2 of the moone, whereof the laſt of the moone ſhall bee ſeene in our Horizon, and all the reſt will fall under our Horizon in the Eaſterly parts of Aſia, as in China, and Japan and the Eaſterly Ilands of the Philippines.

Almanach for the yeare 1644.

New ſtile.

Moone.		da.	ho.	mi.
Januarie	laſt quart.	1	16	54
	new moon.	9	8	3
	firſt quart.	16	2	50
	full moon.	23	9	56
Februa.	laſt quart.	31	14	50
	new moon.	7	20	9
	firſt quart.	14	12	6
	full moon.	22	3	31
March.	laſt quart.	1	8	6
	new moon.	8	6	22
	firſt quart.	14	22	32
	full moon.	22	21	38
April.	laſt quart.	30	21	54
	new moon.	6	15	15
	firſt quart.	13	11	0
	full moon.	21	14	36
May.	laſt quart.	29	7	54
	new moon.	5	23	10
	firſt quart.	13	19	4
	full moon.	21	5	30
June.	laſt quart.	28	15	15
	new moon.	4	7	25
	firſt quart.	11	17	51
	full moon.	19	18	12
July.	laſt quart.	26	21	35
	new moon.	3	16	32
	firſt quart.	11	11	14
	full moon.	19	5	3
Auguſt.	laſt quart.	20	1	30
	new moon.	2	3	36
	firſt quart.	10	4	40
	full moon.	17	14	45
Septēb.	laſt quart.	24	7	5
	new moon.	31	17	16
	firſt quart.	8	21	14
	full moon.	15	23	53
Octob.	laſt quart.	22	14	48
	new moon.	30	9	4
	firſt quart.	8	12	20
	full moon.	15	8	53
Novēb.	laſt quart.	22	1	52
	new moon.	30	3	28
	firſt quart.	7	1	42
	full moon.	13	10	20
Decēb.	laſt quart.	20	17	14
	new moon.	28	22	0
	firſt quart.	6	13	22
	full moon.	13	5	2
	laſt quart.	20	12	15
	new moon.	28	15	42

The golden number is 11, the Epact 21, the circle of the Sun, 1, ſunday letter CB, the Roman Indiction 12, the after winter 8 weekes and 2 dayes, Quadrageſ. the 14 of February, Eaſter the 27 of March, Aſcenſion the firſt of May, Whitſunday the 11 of May, Advent the 27 of November, we have only this yeare two Fclipſes of the ſunne, the one the 8 of March and ſhall be ſeene in the ſouth parts of America, in Peru and thereabout, the ſecond on the 1 of Septem. and in the later end of the eclipſes ſhall bee ſeene in our Hemiſphere.

Almanach for the yeare 1645

New ſtile.

Moone.		da.	ho.	mi.
January	firſt quart.	4	23	0
	full moon.	11	17	21
	laſt quart.	19	9	40
	new moon.	27	7	36
Februa.	firſt quart.	3	7	5
	full moon.	10	7	28
	laſt quart.	18	7	0
	new moon.	25	21	5
March.	firſt quart.	4	14	35
	full moon.	11	22	51
	laſt quart.	20	2	20
	new moon	27	7	42
April.	firſt quart.	2	22	34
	full moon.	10	13	40
	laſt quart.	18	18	20
	new moon.	25	16	12
May.	firſt quart.	2	8	40
	full moon.	10	6	48
	laſt quart.	18	6	47
	new moon	24	23	25
June.	firſt quart.	32	19	24
	full moon.	8	22	5
	laſt quart.	16	16	0
	new moon.	23	6	26
July.	firſt quart.	30	9	10
	full moon.	8	12	34
	laſt quart.	15	22	41
	new moon.	22	14	28
Auguſt.	firſt quart.	27	8	53
	full moon.	7	1	30
	laſt quart.	14	3	57
	new moon	21	0	17
Septēb.	firſt quart.	28	16	37
	full moon.	5	13	27
	laſt quart.	12	9	23
	new moon	19	12	40
Octob.	firſt quart.	27	13	24
	full moon.	5	0	20
	laſt quart.	11	16	21
	new moon	19	3	40
Novēb.	firſt quart.	27	8	0
	full moon.	3	10	14
	laſt quart.	10	2	0
	new moon	17	21	18
Decēb.	firſt quart.	26	1	0
	full moon.	2	20	34
	laſt quart.	0	15	7
	new moon	17	16	38
	firſt quart.	25	15	14

The Golden number of this yeare is 12. the Epact 2. The Circle of Sun 2. Romane Indiction 13, Sunday letter A, the after-winter 9 weekes Quadrageſ. the 5 of March, Eaſterday the 17 of Aprill, Aſcenſion the 25 of May, Whitſunday the 14 of June, Advent the 3 of Decemb. There will be 4 Eclipſes, two of the moon, 2 of the Sun, the 1 of the Moone, on the 10 of February, at the evening about 7 ho. and ſhall laſt 3 ho. 13 mi. that of the ſun the 21 of Auguſt at 1 ho. 10. mi. Theſe both ſhall be ſeen in our Hemiſphere the other under our Horizon.

Almanach for the yeare 1646.

New ſtile.

Moone.		da.	ho.	mi.
January.	full moon.	1	7	6
	laſt quart.	8	7	5
	new moon.	16	12	0
	firſt quart.	24	2	26
Februa.	full moon.	30	18	24
	laſt quart.	7	2	12
	new moon.	15	5	36
	firſt quart.	22	11	0
March.	full moon.	1	6	2
	laſt quart.	8	22	25
	new moon.	16	19	40
	firſt quart.	23	18	0
April.	full moon.	30	19	5
	laſt quart.	7	18	18
	new moon.	15	7	25
	firſt quart.	22	0	30
May.	full moon.	29	8	33
	laſt quart.	7	12	6
	new moon.	14	16	25
	firſt quart.	21	7	36
June.	full moon.	28	22	48
	laſt quart.	6	2	46
	new moon.	12	23	38
	firſt quart.	19	15	56
July.	full moon.	27	13	57
	laſt quarr.	5	14	7
	new moon.	12	6	38
	firſt quart.	19	2	32
Auguſt.	full moon.	27	5	23
	laſt quart.	3	23	0
	new moon.	10	14	6
	firſt quart.	17	16	10
Septēb.	full moon.	25	20	28
	laſt ſiuart.	2	6	7
	new moon.	8	22	50
	firſt quart.	16	9	10
Octob.	full moon.	24	10	39
	laſt quart.	1	12	48
	new moon.	8	9	48
	firſt quart.	16	4	55
Novēb.	full moon.	23	23	34
	laſt quart.	30	19	57
	new moon.	6	23	25
	firſt quart.	15	1	55
Decēb.	full moon.	22	11	36
	laſt quart.	29	4	40
	new moon.	6	16	15
	firſt quart.	14	21	44
	full moon.	21	23	5
	laſt quart.	28	15	14

The Golden number is 13 the Epact 13, the Romane Indiction 14, the ſunday letter G the after Winter 6 weekes 6 dayes, Lent the 18 Februarie, Eaſter the 2 of April, Aſcenſion the 10 of May, Advent on the 2 of December, 4 Eclipſes 2 of the ſun, 2 of the moone, of the which the firſt of the Moone ſhall be ſeen of us the 13 of January at 18 ho. 6 mi. and ſhall laſt 1 houre 55 mi. but the other will be under our Horizon.

Almanach for the yeare 1647.

	New stile, Moone.	da.	ho.	mi.
	new moon	5	11	25
	first quart.	13	14	30
	full moon.	20	9	55
uary	last quart.	27	4	20
	new moon	4	6	40
	first quart.	12	4	2
	full moon.	18	19	56
rua.	last quart.	25	19	12
	new moon	6	1	22
	first quart	13	14	0
	full moon.	20	6	12
ch.	last quart.	27	14	18
	new moon	4	16	45
	first quart.	11	21	33
	full moon,	18	16	20
il.	last quart.	26	9	7
	new moon	4	5	13
	first quart.	11	3	18
	full moon.	18	3	29
y.	last quart.	26	3	14
	new moon	2	15	38
	first quart.	9	8	32
	full moon.	16	16	2
e.	last quart.	24	19	32
	new moon	1	23	44
	first quart.	8	14	35
	full moon.	16	6	17
y.	last quart.	24	9	27
	new moon	31	7	14
	first quart.	6	22	43
	full moon.	14	21	45
guſt.	last quart.	22	21	21
	new moon	29	14	36
	first quart.	5	10	20
	full moon.	13	13	53
tēb.	last quart.	21	7	30
	new moon	27	22	48
	first quart.	5	1	48
	full moon.	13	6	0
ob.	last quart.	20	16	18
	new moon	27	8	52
	first quart.	3	21	0
	full moon.	11	21	38
vēb.	last quart.	19	0	22
	new moon	25	21	32
	first quart.	3	18	24
	full moon.	11	12	8
ēb.	last quart.	18	8	18
	new moon	25	13	7

he Golden Number is 14, Epact is 24, the ſundaies letter F, Romane indict 15, the winter 8 weekes & 5 daies, dragef. 10 of March, Eaſter 21 of Aprill, Aſcenſion the of May, Whitſunday the 30 ay, Adven: the 1 of Deber, 4 Eclipſes 3 of the ſun, the moone, whereof that of moone ſhall bee ſeene in our izon, the other under it.

Almanach for the yeare 1648.

	New stile, Moone.	dá.	ho.	mi.
	first quart.	2	15	49
	full moon.	10	1	12
Januarie	last quart.	16	17	54
	new moon.	24	6	46
	first quart.	1	11	13
	full moon.	8	12	22
Februa.	last quart.	15	3	49
	new moon.	23	1	12
	first quart.	2	3	16
	full moon.	8	21	56
March.	last quart.	15	16	42
	new moon.	23	19	0
	first quart.	31	15	23
	full moon.	7	6	34
April.	last quart.	14	7	27
	new moon.	22	11	7
	first quart.	29	23	58
	full moon.	6	15	7
May.	last quart.	13	0	37
	new moon.	22	1	11
	first quart.	29	5	40
	full moon.	5	0	20
June.	last quart.	12	16	42
	new moon.	20	12	56
	first quart.	27	10	25
	full moon	4	11	37
July.	last quart.	12	5	48
	new moon.	19	22	54
	first quart.	26	15	25
	full moon.	2	23	35
Auguſt.	last quart.	11	2	30
	new moon.	18	7	18
	first quart	24	22	5
	full moon.	1	14	12
Septēb.	last quart.	9	17	50
	new moon.	10	15	24
	first quart.	23	7	50
	full moon.	1	6	37
Octob.	last quart.	9	7	18
	new moon.	15	23	56
	first quart.	22	21	5
	full moon.	31	0	30
Novēb.	last quart.	7	18	43
	new moon.	14	8	12
	first quart.	21	14	56
	full moon.	29	18	38
Decēb.	last quart.	7	4	22
	new moon.	13	21	46
	first quart.	21	10	34
	full moon.	29	11	30

The golden number is 15, the Epact 5, the circle of the Sun, 25, ſunday leter ED, the Roman Indiction 1, the after winter 8 w. and 4 dayes, Quadrageſ. the 2 of March, Eaſter-day the 1 of Aprill, Aſcenſion the 21 of May, Whitſunday the 31. of May, Adven. the 29 of November, we have 4 Fclipſes 2 of the ſunne, 2 of the moone, the laſt of the Moon ſhall be ſeene in our Hemiſphere, the 29 of November at 19 ho. 8 mi. and they will laſt 3 ho. 6 mi. all the other will be under our Horizon.

Almanach for the yeare 1649.

	New stile, Moone.	da.	ho.	mi.
	last quart.	5	4	22
	new moon.	12	12	45
January	first quart.	20	8	30
	full moon.	28	1	50
	last quart.	3	20	52
	new moon.	11	2	48
Februa.	first quart.	19	5	40
	full moon.	26	13	39
	last quart.	5	5	34
	new moon.	12	19	6
March.	first quart.	20	23	52
	full moon.	27	23	14
	last quart.	3	15	16
	new moon	11	11	52
April.	first quart.	19	13	20
	full moon.	26	7	28
	last quart.	3	2	20
	new moon.	11	4	12
May.	first quart.	19	0	3
	full moon.	25	15	0
	last quart.	1	15	33
	new moon	9	19	20
June.	first quart.	17	7	10
	full moon.	23	22	54
	last quart.	1	6	27
	new moon.	9	8	44
July.	first quart.	16	12	40
	full moon.	23	7	52
	last quart.	30	23	34
	new moon.	7	20	18
Auguſt.	first quart.	14	17	54
	full moon.	21	18	46
	last quart.	29	17	56
	new moon	6	6	32
Septēb.	first quart.	12	23	56
	full moon.	20	7	50
	last quart.	28	12	0
	new moon	5	16	14
Octob.	first quart.	12	8	15
	full moon.	20	0	10
	last quart.	28	4	41
	new moon	4	21	2
Novēb.	first quart.	10	19	0
	full moon.	18	19	0
	last quart.	26	19	10
	new moon	3	12	21
Decēb.	first quart.	10	9	42
	full moon.	18	14	31
	last quart.	26	7	12

The Golden number of this year is 16. the Epact 16. Roman Indiction 2, Sunday letter C, the after-winter 7 w. 2. da. Quadrageſ. the 21. of Febr. Eaſterday the 4 of April, Aſcen. 13 of May Whitſ. the 23 of May, Adv. the 28 of Nov. there will be 5 Eclipſes, 2 of the moon, 3 of the Sun both of the Moon, & the midle of the ſun ſhalbe ſeen in our Horizon the 1 of the moone the 25 May, 5 ho. and 57 mi. the 1 of the ſun, 9 June at the 19 ho. 57 mi. the 3 of the ſun the 4 of No. 3 ho 9 mi. and ſhalbe ſeene of us the 4 will bee of the moone the 18 of Nov. 19 ho. 34 mi. the 1. of the ſun 4 of Dece. 12 ho. 35 mi. & il ſhew it ſelfe in the ſ. ly parts of the world, under our Ho.

Almanach for the yeare 1650.

	New stile, Moone.	da.	ho	mi
	new moon	1	23	0
	first quart.	9	4	6
January.	full moon.	17	8	52
	last quart.	24	17	6
	new moon.	31	11	12
	first quart.	8	0	58
Februa.	full moon.	16	0	38
	last quart.	23	1	15
	new moon.	1	23	58
	first quart.	9	22	9
March.	full moon.	17	14	40
	last quart.	24	8	28
	new moon.	31	13	56
	first quart.	8	17	18
April.	full moon.	15	23	52
	last quart.	22	15	33
	new moon.	30	5	0
	first quart.	8	9	0
May.	full moon.	15	8	15
	last quart.	21	23	24
	new moon,	29	20	33
	first quart.	6	21	29
June.	full moon.	13	15	30
	last quart.	20	9	54
	new moon.	28	11	50
	first quart.	6	7	0
July.	full moon.	12	22	22
	last quarr.	19	22	20
	new moon.	28	2	28
	first quart.	4	14	33
Auguſt.	full moon.	11	6	42
	last quart.	18	14	16
	new moon.	26	16	0
	first quart.	2	20	56
Septēb.	full moon.	9	15	34
	last ſuart.	17	8	37
	new moon.	25	4	46
	first quart.	2	3	4
Octob.	full moon.	9	3	50
	last quart.	17	4	20
	new moon.	24	16	52
	first quart.	31	10	12
Novēb.	full moon.	7	19	28
	last quart.	15	23	43
	new moon.	23	4	17
	first quart.	29	19	32
Decēb.	full moon.	7	13	46
	last quart.	15	17	26
	new moon.	22	22	44
	first quart.	29	8	4

The golden number is 17. the Epact 27, the Romane Indiction 3, the ſunday letter B the after Winter 9 weekes 1 daye, Quadrag. the 6 March, Eaſter the 17 of April, Aſcenſiō the 26 of May, Whitſunday the 5 of Iune, Advent the 27 of No. 4 Eclipſes 2 of the ſun, 2 of the moon, which may be both of thē ſeen of us in the evening at 8 ho. 41 mi. the 2 of the moone the 7 of No. in the morning 20 ho. 14 mi. theſe of the ſun fall both under our Horiz. the 1 will be ſeen in the ſoutherly parts of America as in Peru, the other faleth on the eaſt of our Hor. will be ſeene in India and Perſia and that extra Gangem.

Almanach for the yeare 1643.

New stile.

Moone.		da.	ho.	mi.
January	full moon.	4	14	6
	last quart.	12	19	10
	new moon	19	18	16
	first quart.	26	10	52
Februa.	full moon.	3	9	4
	last quart.	11	10	54
	new moon	18	4	16
	first quart	25	9	42
March.	full moon.	5	3	51
	last quart.	12	22	43
	new moon	19	13	55
	first quart.	26	16	32
April.	full moon.	3	20	51
	last quart.	11	6	57
	new moon	17	23	31
	first quart.	25	9	45
May.	full moon.	3	10	58
	last quart.	10	12	57
	new moon	17	9	40
	first quart.	25	3	43
June.	full moon.	1	22	19
	last quart.	8	18	4
	new moon	15	20	39
	first quart.	23	21	16
July.	full moon.	1	7	20
	last quart.	8	16	47
	new moon	15	9	1
	first quart.	23	13	20
Auguſt.	full moon.	30	15	11
	last quart.	6	6	32
	new moon	13	23	46
	first quart.	22	3	15
Septēb.	full moon.	28	22	51
	last quart.	4	16	16
	new moon	12	16	10
	first quart.	20	16	17
Octob.	full moon.	27	7	9
	last quart.	4	5	0
	new moon	12	9	30
	first quart.	20	0	54
Novēb.	full moon.	26	16	48
	last quart.	2	22	5
	new moon	11	2	31
	first quart.	18	9	46
Decēb.	full moon.	25	4	15
	last quart.	2	18	53
	new moon	10	18	10
	first quart.	17	18	16
	full moon.	24	18	0

The Golden Number is 10, the Epact is 10, the Circle of the Sun 28, the ſundayes letter is D, Romane indict 11, the after winter 7 weekes and 3 dayes, Quadrageſ. 22 of Februarie, Eaſter the 5 of Aprill, Aſcenſion the 14 of May, Whitſunday the 24 of May, Adven: the 29 of November, 4 Eclipſes 2 of the ſun, 2 of the moone, whereof the laſt of the moone ſhall bee ſeene in our Horizon, and all the reſt will fall under our Horizon in the Eaſterly parts of Aſia, as in China, and Japan and the Eaſterly Ilands of the Philippines.

Almanach for the yeare 1644.

New ſtile.

Moone.		da.	ho.	mi.
Januarie	last quart.	1	16	54
	new moon.	9	8	3
	first quart.	16	2	50
	full moon.	23	9	56
Februa.	last quart.	31	14	50
	new moon.	7	20	9
	first quart.	14	12	6
	full moon.	22	3	31
March.	last quart.	1	8	6
	new moon.	8	6	22
	first quart.	14	22	32
	full moon.	22	21	38
April.	last quart.	30	21	54
	new moon.	6	15	15
	first quart.	13	11	0
	full moon.	21	14	36
May.	last quart.	29	7	54
	new moon.	5	23	10
	first quart.	13	19	4
	full moon.	21	5	30
June.	last quart.	28	15	15
	new moon.	4	7	25
	first quart.	11	17	51
	full moon.	19	18	12
July.	last quart.	26	21	35
	new moon.	3	16	32
	first quart.	11	11	14
	full moon.	19	5	3
Auguſt.	last quart.	20	1	30
	new moon.	2	3	36
	first quart.	10	4	40
	full moon.	17	14	45
Septēb.	last quart.	24	7	5
	new moon.	31	17	16
	first quart.	8	21	14
	full moon.	15	23	53
Octob.	last quart.	22	14	48
	new moon.	30	9	4
	first quart.	8	12	20
	full moon.	15	8	53
Novēb.	last quart.	22	1	52
	new moon.	30	3	28
	first quart.	7	1	42
	full moon.	13	10	20
Decēb.	last quart.	20	17	14
	new moon.	28	22	0
	first quart.	6	13	22
	full moon.	13	5	2
	last quart.	20	12	15
	new moon.	28	15	42

The golden number is 11, the Epact 21, the circle of the Sun, 1, ſunday letter CB, the Roman Indiction 12, the after winter 8 weekes and 2 dayes, Quadrageſ. the 14 of February, Eaſter the 27 of March, Aſcenſion the firſt of May, Whitſunday the 11 of May, Advent the 27 of November, we have only this yeare two Eclipſes of the ſunne, the one the 8 of March and ſhall be ſeene in the ſouth parts of America, in Peru and thereabout, the ſecond on the 1 of Septem. and in the later end of the eclipſes ſhall bee ſeene in our Hemiſphere.

Almanach for the yeare 1645

New ſtile.

Moone.		da.	ho.	mi.
January	first quart.	4	23	0
	full moon.	11	17	21
	last quart.	19	9	40
	new moon.	27	7	36
Februa.	first quart.	3	7	5
	full moon.	10	7	28
	last quart.	18	7	0
	new moon.	25	21	5
March.	first quart.	4	14	35
	full moon.	11	22	51
	last quart.	20	2	20
	new moon	27	7	42
April.	first quart.	2	22	34
	full moon.	10	13	40
	last quart.	18	18	20
	new moon.	25	16	12
May.	first quart.	2	8	40
	full moon.	10	6	48
	last			
	new			
June.	first			
	full			
	last			
	new			
July.	first			
	full			
	last			
	new			
Auguſt.	first			
	full			
	last			
	new			
Septēb.	first			
	full			
	last			
	new			
Octob.	first			
	full			
	last			
	new			
Novēb.	first			
	full			
	last			
	new			
Decēb.	first			
	full			
	last quart.	0	15	7
	new moon	17	16	38
	first quart.	25	15	14

The Golden number of this yeare is 12. the Epact 2. The Circle of Sun 2. Romane Indiction 13, Sunday letter A, the after-winter 9 weekes Quadrageſ. the 5 of March, Eaſterday the 17 of Aprill, Aſcenſion the 25 of May, Whitſunday the 14 of June, Advent the 3 of Decemb. There will be 4 Eclipſes, two of the moon, 2 of the Sun, the 1 of the Moone, on the 10 of February, at the evening about 7 ho. and ſhall laſt 3 ho. 13 mi. that of the ſun the 21 of Auguſt at 1 ho. 10. mi. Theſe both ſhall be ſeen in our Hemiſphere the other under our Horizon.

Almanach for the yeare 1646.

New ſtile.

Moone.		da.	ho.	mi.
January.	full moon.	1	7	6
	last quart.	8	7	5
	new moon.	16	12	0
	first quart.	24	2	26
Februa.	full moon.	30	18	24
	last quart.	7	2	12
	new moon.	15	5	36
	first quart.	22	11	0
March.	full moon.	1	6	2
	last quart.	8	22	25
	new moon.	16	19	43
	first quart.	23	18	0
April.	full moon.	30	19	5
	last quart.	7	18	18
	new moon.	15	7	25
	first quart.	22	0	30
May.	full moon.	29	8	33
	last quart.	7	12	6
	new moon.			
	first quart.	14	21	44
June.	full moon.	21	23	5
	last quart.	28	15	14

The Golden number is 13 the Epact 13, the Romane Indiction 14, the ſunday letter G the after Winter 6 weekes 6 dayes, Lent the 18 Februarie, Eaſter the 2 of April, Aſcenſion the 10 of May, Advent on the 2 of December, 4 Eclipſes 2 of the ſun, 2 of the moone, of the which the firſt of the Moone ſhall be ſeen of us the 13 of January at 18 ho. 6 mi. and ſhall laſt 1 houre 55 mi. but the other will be under our Horizon.

NOTE

This volume ha
tight binding and w
effort has been ma
duce the centres, fo
result in dam

academ
microforms

Almanach for the yeare 1647.

	New stile. Moone.	da.	ho.	mi.
	new moon	5	11	25
	first quart.	13	14	30
	full moon.	20	9	55
uary	last quart.	27	4	20
	new moon	4	6	40
	first quart.	12	4	2
	full moon.	18	19	56
rua.	last quart.	25	19	12
	new moon	6	1	22
	first quart	13	14	0
	full moon.	20	6	12
ch.	last quart.	27	14	18
	new moon	4	16	45
	first quart.	11	21	33
	full moon.	18	16	20
il.	last quart.	26	9	7
	new moon	4	5	13
	first quart.	11	3	18
	full moon.	18	3	29
y.	last quart.	26	3	14
	new moon	3	15	38

Almanach for the yeare 1648.

	New stile. Moone.	dá.	ho.	mi.
	first quart.	2	15	49
	full moon.	10	1	12
Januarie	last quart.	16	17	54
	new moon.	24	6	46
	first quart.	1	11	13
	full moon.	8	12	22
Februa.	last quart.	15	3	49
	new moon.	23	1	12
	first quart.	2	3	16
	full moon.	8	21	56
March.	last quart.	15	16	42
	new moon.	23	19	0
	first quart.	31	15	23
	full moon.	7	6	34
April.	last quart.	14	7	27
	new moon.	22	11	7
	first quart.	29	23	58
	full moon.	6	15	7
May.	last quart.	13	0	37
	new moon.	22	1	11
	first quart.	29	5	40
	on.	5	0	20
	art.	12	16	42
	on.	20	12	56
	art.	27	10	25
	on.	4	11	37
	art.	12	9	48
	on.	19	22	54
	art.	26	15	25
	on.	2	23	35
	art.	11	2	30
	on.	18	7	18
	art	24	22	5
	on.	1	14	12
	art.	9	17	50
	on.	16	15	24
	art.	23	7	50
	on.	1	6	37
	art.	9	7	18
	on.	15	23	56
	art.	22	21	5
	on.	31	0	30
	art.	7	18	43
	oon.	14	8	12
	art.	21	14	56
	oon.	29	18	38
	art.	7	4	22
	oon.	13	21	46
	art.	21	10	34
	full moon.	29	11	30

Almanach for the yeare 1649

	New stile. Moone.	da.	ho.	mi.
	last quart.	5	4	22
	new moon.	12	12	45
January	first quart.	20	8	30
	full moon.	28	1	50
	last quart.	3	20	52
	new moon.	11	2	48
Februa.	first quart.	19	5	40
	full moon.	26	13	39
	last quart.	5	5	34
	new moon.	12	19	6
March.	first quart.	20	23	52
	full moon.	27	23	14
	last quart.	3	15	16
	new moon	11	11	52
April.	first quart.	19	13	20
	full moon.	26	7	28
	last quart.	3	2	20
	new moon.	11	4	12
May.	first quart.	19	0	3
	full moon.	25	15	0
	last quart.	1	15	33
	new moon	9	19	20
June.	first quart.	17	7	10
	full moon.	23	22	54
	last quart.	1	6	27
	new moon.	9	8	44
July.	first quart.	16	12	40
	full moon.	23	7	52
	last quart.	30	23	34
	new moon.	7	20	18
Auguſt.	first quart.	14	17	54
	full moon.	21	18	46
	last quart.	29	17	56
	new moon	6	6	32
Septēb.	first quart.	12	23	56
	full moon.	20	7	50
	last quart.	28	12	0
	new moon	5	16	14
Octob.	first quart.	12	8	15
	full moon.	20	0	10
	last quart.	28	4	41
	new moon	4	21	2
Novēb.	first quart.	10	19	0
	full moon.	18	19	0
	last quart.	26	19	10
	new moon	3	12	21
Decēb.	first quart.	10	9	42
	full moon.	18	14	31
	last quart.	26	7	12

Almanach for the yeare 1650.

	New stile. Moone.	da.	ho.	mi.
	new moon	1	23	0
	first quart.	9	4	6
January.	full moon.	17	8	52
	last quart.	24	17	6
	new moon.	31	11	12
	first quart.	8	0	58
Februa.	full moon.	16	0	38
	last quart.	23	1	15
	new moon.	1	23	58
	first quart.	9	22	9
March.	full moon.	17	14	40
	last quart.	24	8	28
	new moon.	31	13	56
	first quart.	8	17	18
April.	full moon.	15	23	52
	last quart.	22	15	33
	new moon.	30	5	0
	first quart.	8	9	0
May.	full moon.	15	8	15
	last quart.	21	23	24
	new moon.	29	20	33
	first quart.	6	21	29
June.	full moon.	13	15	30
	last quart.	20	9	54
	new moon.	28	11	50
	first quart.	6	7	0
July.	full moon.	12	22	22
	last quarr.	19	22	20
	new moon.	28	2	28
	first quart.	4	14	33
Auguſt.	full moon.	11	6	42
	last quart.	18	14	16
	new moon.	26	16	0
	first quart.	2	20	56
Septēb.	full moon.	9	15	34
	last fuart.	17	8	37
	new moon.	25	4	46
	first quart.	2	3	4
Octob.	full moon.	9	3	50
	last quart.	17	4	20
	new moon.	24	16	52
	first quart.	31	10	12
Novēb.	full moon.	7	19	28
	last quart.	15	23	43
	new moon.	23	4	17
	first quart.	29	19	32
Decēb.	full moon.	7	13	46
	last quart.	15	17	26
	new moon.	22	22	44
	first quart.	29	8	4

he Golden Number is 14, Epact is 24, the ſundaies letter F, Romane indict 15, the winter 8 weekes & 5 daies, drageſ. 10 of March, Eaſter 21 of Aprill, Aſcenſion the f May, Whitſunday the 30 ay, Adven: the 1 of De-ber, 4 Eclipſes 3 of the ſun, the moone, whereof that of moone ſhall bee ſeene in our izon, the other under it.

The golden number is 15, the Epact 5, the circle of the Sun, 25, ſunday leter ED, the Roman Indiction 1, the after winter 8 w. and 4 dayes, Quadrageſ. the 2 of March, Eaſter-day the 1 of Aprill, Aſcenſion the 21 of May, Whitſunday the 31. of May, Adven. the 29 of November, we have 4 Fclipſes 2 of the ſunne, 2 of the moone, the laſt of the Moon ſhall be ſeene in our Hemiſphere, the 29 of November at 19 ho. 8 mi. and they will laſt 3 ho. 6 mi. all the other will be under our Horizon.

The Golden number of this year is 16. the Epact 16. Roman Indiction 2, Sunday letter C, the after-winter 7 w. 2. da. Quadrageſ. the 21. of Febr. Eaſterday the 4 of April, Aſcen. 13 of May Whitſ. the 23 of May, Adv. the 28 of Nov. there will be 5 Eclipſes, 2 of the moon, 3 of the Sun both of the Moon, & the midle of the ſun ſhalbe ſeen in our Horizon the 1 of the moone the 25 May, 5 ho. and 57 mi. the 1 of the ſun, 9 June at the 19 ho. 57 mi. the 3 of the ſun the 4 of No. 3 ho 9 mi. and ſhalbe ſeene of us the 4 will bee of the moone the 18 of Nov. 19 ho. 34 mi. the 1. of the ſun 4 of Dece. 12 ho. 35 mi. & il ſhew it ſelfe in the ſ. ly parts of the world, under our Ho.

The golden number is 17. the Epact 27, the Romane Indiction 3, the ſunday letter B the after Winter 9 weekes 1 daye, Quadrag. the 6 March, Eaſter the 17 of April, Aſcenſiō the 26 of May, Whitſunday the 5 of Iune, Advent the 27 of No. 4 Eclipſes 2 of the ſun, 2 of the moon, which may be both of thē ſeen of us in the evening at 8 ho. 41 mi. the 2 of the moone the 7 of No. in the morning 20 ho. 14 mi. theſe of the ſun fall both under our Horiz. the 1 will be ſeen in the ſoutherly parts of America as in Peru, the other faleth on the eaſt of our Hor. will be ſeene in India and Perſia and that extra Gangem.

ume has a very
g and while every
een made to repro-
ntres, force would
lt in damage
ademic
oforms

Almanach for the yeare 1643.
New stile.

Moone.	da.	ho.	mi.
January: full moon.	4	14	6
January: last quart.	12	19	10
January: new moon	19	18	16
January: first quart.	26	10	52
Februa. full moon.	3	9	4
Februa. last quart.	11	10	54
Februa. new moon	18	4	16
Februa. first quart	25	9	42
March. full moon.	5	3	51
March. last quart.	12	22	43
March. new moon	19	13	55
March. first quart.	26	16	32
April. full moon.	3	20	51
April. last quart.	11	6	57
April. new moon	17	23	31
April. first quart.	25	9	45
May. full moon.	3	10	58
May. last quart.	10	12	57
May. new moon	17	9	40
May. first quart.	25	3	43
June. full moon.	1	22	19
June. last quart.	8	18	4
June. new moon	15	20	39
June. first quart.	23	21	16
July. full moon.	1	7	20
July. last quart.	8	16	47
July. new moon	15	9	1
July. first quart.	23	13	20
Auguſt. full moon.	30	15	11
Auguſt. last quart.	6	6	32
Auguſt. new moon	13	23	46
Auguſt. first quart.	22	3	15
Septēb. full moon.	28	22	51
Septēb. last quart.	4	16	16
Septēb. new moon	12	16	10
Septēb. first quart.	20	16	17
Octob. full moon.	27	7	9
Octob. last quart.	4	5	0
Octob. new moon	12	9	30
Octob. first quart.	20	0	54
Novēb. full moon.	26	16	48
Novēb. last quart.	2	22	5
Novēb. new moon	11	2	31
Novēb. first quart.	18	9	46
Decēb. full moon.	25	4	15
Decēb. last quart.	2	18	53
Decēb. new moon	10	18	10
Decēb. first quart.	17	18	16
full moon.	24	18	0

The Golden Number is 10, the Epact is 10, the Circle of the Sun 28, the ſundayes letter is D, Romane indict 11, the after winter 7 weekes and 3 dayes, Quadrageſ. 22 of Februarie, Eaſter the 5 of Aprill, Aſcenſion the 14 of May, Whitſunday the 24 of May, Adven: the 29 of November, 4 Eclipſes 2 of the ſun, 2 of the moone, whereof the laſt of the moone ſhall bee ſeene in our Horizon, and all the reſt will fall under our Horizon in the Eaſterly parts of Aſia, as in China, and Japan and the Eaſterly Ilands of the Philippines.

Almanach for the yeare 1644.
New ſtile.

Moone.	da.	ho.	mi.
Januarie: laſt quart.	1	16	54
Januarie: new moon.	9	8	3
Januarie: firſt quart.	16	2	50
Januarie: full moon.	23	9	56
Februa. laſt quart.	31	14	50
Februa. new moon.	7	20	9
Februa. firſt quart.	14	12	6
Februa. full moon.	22	3	31
March. laſt quart.	1	8	6
March. new moon.	8	6	22
March. firſt quart.	14	22	32
March. full moon.	22	21	38
April. laſt quart.	30	21	54
April. new moon.	6	15	15
April. firſt quart.	13	11	0
April. full moon.	21	14	36
May. laſt quart.	29	7	54
May. new moon.	5	23	10
May. firſt quart.	13	19	4
May. full moon.	21	5	30
June. laſt quart.	28	15	15
June. new moon.	4	7	25
June. firſt quart.	11	17	51
June. full moon.	19	18	12
July. laſt quart.	26	21	35
July. new moon.	3	16	32
July. firſt quart.	11	11	14
July. full moon.	19	5	3
Auguſt. laſt quart.	20	1	30
Auguſt. new moon.	2	3	36
Auguſt. firſt quart.	10	4	40
Auguſt. full moon.	17	14	45
Septēb. laſt quart.	24	7	5
Septēb. new moon.	31	17	16
Septēb. firſt quart.	8	21	14
Septēb. full moon.	15	23	53
Octob. laſt quart.	22	14	48
Octob. new moon.	30	9	4
Octob. firſt quart.	8	12	20
Octob. full moon.	15	8	53
Novēb. laſt quart.	22	1	52
Novēb. new moon.	30	3	28
Novēb. firſt quart.	7	1	42
Novēb. full moon.	13	10	20
Decēb. laſt quart.	20	17	14
Decēb. new moon.	28	22	0
Decēb. firſt quart.	6	13	22
Decēb. full moon.	13	5	2
Decēb. laſt quart.	20	12	15
new moon.	28	15	42

The golden number is 11, the Epact 21, the circle of the Sun, 1, ſunday letter CB, the Roman Indiction 12, the after winter 8 weekes and 2 dayes, Quadrageſ. the 14 of February, Eaſter the 27 of March, Aſcenſion the firſt of May, Whitſunday the 11 of May, Advent the 27 of November, we have only this yeare two Fclipſes of the ſunne, the one the 8 of March and ſhall be ſeene in the ſouth parts of America, in Peru and thereabout, the ſecond on the 1 of Septem. and in the later end of the eclipſes ſhall bee ſeene in our Hemiſphere.

Almanach for the yeare 1645
New ſtile.

Moone.	da.	ho.	mi.
January: firſt quart.	4	23	0
January: full moon.	11	17	21
January: laſt quart.	19	9	40
January: new moon.	27	7	36
Februa. firſt quart.	3	7	5
Februa. full moon.	10	7	28
Februa. laſt quart.	18	7	0
Februa. new moon.	25	21	5
March. firſt quart.	4	14	35
March. full moon.	11	22	51
March. laſt quart.	20	2	20
March. new moon	27	7	42
April. firſt quart.	2	22	34
April. full moon.	10	13	40
April. laſt quart.	18	18	20
April. new moon.	25	16	12
May. firſt quart.	2	8	40
May. full moon.	10	6	48
May. laſt quart.	18	6	47
May. new moon	24	23	25
June. firſt quart.	32	19	24
June. full moon.	8	22	5
June. laſt quart.	16	16	0
June. new moon.	23	6	26
July. firſt quart.	30	9	10
July. full moon.	8	12	34
July. laſt quart.	15	22	41
July. new moon.	22	14	28
Auguſt. firſt quart.	27	8	53
Auguſt. full moon.	7	1	30
Auguſt. laſt quart.	14	3	57
Auguſt. new moon	21	0	17
Septēb. firſt quart.	28	16	37
Septēb. full moon.	5	13	27
Septēb. laſt quart.	12	9	23
Septēb. new moon	19	12	40
Octob. firſt quart.	27	13	24
Octob. full moon.	5	0	20
Octob. laſt quart.	11	16	21
Octob. new moon	19	3	40
Novēb. firſt quart.	27	8	0
Novēb. full moon.	3	10	14
Novēb. laſt quart.	10	2	0
Novēb. new moon	17	21	18
Decēb. firſt quart.	26	1	0
Decēb. full moon.	2	20	34
Decēb. laſt quart.	0	15	7
Decēb. new moon	17	16	38
firſt quart.	25	15	14

The Golden number of this yeare is 12. the Epact 2. The Circle of Sun 2. Romane Indiction 13, Sunday letter A, the after-winter 9 weekes Quadrageſ. the 5 of March, Eaſterday the 17 of Aprill, Aſcenſion the 25 of May, Whitſunday the 14 of June, Advent the 3 of Decemb. There will be 4 Eclipſes, two of the moon, 2 of the Sun, the 1 of the Moone, on the 10 of February, at the evening about 7 ho. and ſhall laſt 3 ho. 13 mi. that of the ſun the 21 of Auguſt at 1 ho. 10. mi. Theſe both ſhall be ſeen in our Hemiſphere the other under our Horizon.

Almanach for the yeare 1646.
New ſtile.

Moone.	da.	ho.	mi.
January: full moon.	1	7	6
January: laſt quart.	8	7	5
January: new moon.	16	12	0
January: firſt quart.	24	2	26
Februa. full moon.	30	18	24
Februa. laſt quart.	7	2	12
Februa. new moon.	15	5	36
Februa. firſt quart.	22	11	0
March. full moon.	1	6	2
March. laſt quart.	8	22	25
March. new moon.	16	19	40
March. firſt quart.	23	18	0
April. full moon.	30	19	5
April. laſt quart.	7	18	18
April. new moon.	15	7	25
April. firſt quart.	22	0	30
May. full moon.	29	8	33
May. laſt quart.	7	12	6
May. new moon.	14	16	25
May. firſt quart.	21	7	36
June. full moon.	28	22	48
June. laſt quart.	6	2	46
June. new moon.	12	23	38
June. firſt quart.	19	15	56
July. full moon.	27	13	57
July. laſt quarr.	5	14	7
July. new moon.	12	6	38
July. firſt quart.	19	2	32
Auguſt. full moon.	27	5	23
Auguſt. laſt quart.	3	23	0
Auguſt. new moon.	10	14	6
Auguſt. firſt quart.	17	16	10
Septēb. full moon.	25	20	28
Septēb. laſt ſiuart.	2	6	7
Septēb. new moon.	8	22	50
Septēb. firſt quart.	16	9	10
Octob. full moon.	24	10	39
Octob. laſt quart.	1	12	48
Octob. new moon.	8	9	48
Octob. firſt quart.	16	4	55
Novēb. full moon.	23	23	34
Novēb. laſt quart.	30	19	57
Novēb. new moon.	6	23	25
Novēb. firſt quart.	15	1	55
Decēb. full moon.	22	11	36
Decēb. laſt quart.	29	4	40
Decēb. new moon.	6	16	15
Decēb. firſt quart.	14	21	44
full moon.	21	23	5
laſt quart.	28	15	14

The Golden number is 13 the Epact 13, the Romane Indiction 14, the ſunday letter G the after Winter 6 weekes 6 dayes, Lent the 18 Februarie, Eaſter the 2 of April, Aſcenſion the 10 of May, Advent on the 2 of December, 4 Eclipſes 2 of the ſun, 2 of the moone, of the which the firſt of the Moone ſhall be ſeen of us the 13 of January at 18 ho. 6 mi. and ſhall laſt 1 houre 55 mi. but the other will be under our Horizon.

Almanach for the yeare 1647.

	New stile, Moone.	da.	ho.	mi.
	new moon	5	11	25
	first quart.	13	14	30
	full moon.	20	9	55
uary	last quart.	27	4	20
	new moon	4	6	40
	first quart.	12	4	2
	full moon.	18	19	56
rua.	last quart.	25	19	12
	new moon	6	1	22
	first quart	13	14	0
	full moon.	20	6	12
rch.	last quart.	27	14	18
	new moon	4	16	45
	first quart.	11	21	33
	full moon.	18	16	20
il.	last quart.	26	9	7
	new moon	4	5	13
	first quart.	11	3	18
	full moon.	18	3	29
y.	last quart.	26	3	14
	new moon	2	15	38
	first quart.	9	8	32
	full moon.	16	16	2
e.	last quart.	24	19	32
	new moon	1	23	44
	first quart.	8	14	35
	full moon.	16	6	17
y.	last quart.	24	9	27
	new moon	31	7	14
	first quart.	6	22	43
	full moon.	14	21	45
guſt.	last quart.	22	21	21
	new moon	29	14	36
	first quart.	5	10	20
	full moon.	13	13	53
tēb.	last quart.	21	7	30
	new moon	27	22	48
	first quart.	5	1	48
	full moon.	13	6	0
ob.	last quart.	20	16	18
	new moon	27	8	52
	first quart.	3	21	0
	full moon.	11	21	38
vēb.	last quart.	19	0	22
	new moon	25	21	32
	first quart.	3	18	24
	full moon.	11	12	8
ēb.	last quart.	18	8	18
	new moon	25	13	7

he Golden Number is 14, Epact is 24, the ſundaies let- s F, Romane indict 15, the winter 8 weekes & 5 daies, drageſ. 10 of March, Eaſter 21 of Aprill, Aſcenſion the f May, Whitſunday the 30 ay, Adven: the 1 of De- ber, 4 Eclipſes 3 of the ſun, the moone, whereof that of moone ſhall bee ſeene in our izon, the other under it.

Almanach for the yeare 1648.

	New ſtile, Moone.	dá.	ho.	mi.
	first quart.	2	15	49
	full moon.	10	1	12
Januarie	last quart.	16	17	54
	new moon.	24	6	46
	first quart.	1	11	13
	full moon.	8	12	22
Februa.	last quart.	15	3	49
	new moon.	23	1	12
	first quart.	2	3	16
	full moon.	8	21	56
March.	last quart.	15	16	42
	new moon.	23	19	0
	first quart.	31	15	23
	full moon.	7	6	34
April.	last quart.	14	7	27
	new moon.	22	11	7
	first quart.	29	23	58
	full moon.	6	15	7
May.	last quart.	13	0	37
	new moon.	22	1	11
	first quart.	29	5	40
	full moon.	5	0	20
June.	last quart.	12	16	42
	new moon.	20	12	56
	first quart.	27	10	25
	full moon.	4	11	37
July.	last quart.	12	9	48
	new moon.	19	22	54
	first quart.	26	15	25
	full moon.	2	23	35
Auguſt.	last quart.	11	2	30
	new moon.	18	7	18
	first quart	24	22	5
	full moon.	1	14	12
Septēb.	last quart.	9	17	50
	new moon.	10	15	24
	first quart.	23	7	50
	full moon.	1	6	37
Octob.	last quart.	9	7	18
	new moon.	15	23	56
	first quart.	22	21	5
	full moon.	31	0	30
Novēb.	last quart.	7	18	43
	new moon.	14	8	12
	first quart.	21	14	56
	full moon.	29	18	38
Decēb.	last quart.	7	4	22
	new moon.	13	21	46
	first quart.	21	10	34
	full moon.	29	11	30

The golden number is 15, the Epact 5, the circle of the Sun, 25, ſunday leter E D, the Roman Indiction 1, the after winter 8 w. and 4 dayes, Quadrageſ. the 2 of March, Eaſter-day the 1 of Aprill, Aſcenſion the 21 of May, Whitſunday the 31. of May, Adven. the 29 of November, we have 4 Fclipſes 2 of the ſunne, 2 of the moone, the laſt of the Moon ſhall be ſeene in our Hemiſphere, the 29 of November at 19 ho. 8 mi. and they will laſt 3 ho. 6 mi. all the other will be under our Horizon.

Almanach for the yeare 1649.

	New ſtile, Moone.	da.	ho.	mi.
	last quart.	5	4	22
	new moon.	12	12	45
January	first quart.	20	8	30
	full moon.	28	1	50
	last quart.	3	20	52
	new moon.	11	2	48
Februa.	first quart.	19	5	40
	full moon.	26	13	39
	last quart.	5	5	34
	new moon.	12	19	6
March.	first quart.	20	23	52
	full moon.	27	23	14
	last quart.	3	15	16
	new moon	11	11	52
April.	first quart.	19	13	20
	full moon.	26	7	28
	last quart.	3	2	20
	new moon.	11	4	12
May.	first quart.	19	0	3
	full moon.	25	15	0
	last quart.	1	15	33
	new moon	9	19	20
June.	first quart.	17	7	10
	full moon.	23	22	54
	last quart.	1	6	27
	new moon.	9	8	44
July.	first quart.	16	12	40
	full moon.	23	7	52
	last quart.	30	23	34
	new moon.	7	20	18
Auguſt.	first quart.	14	17	54
	full moon.	21	18	46
	last quart.	29	17	56
	new moon	6	6	32
Septēb.	first quart.	12	23	56
	full moon.	20	7	50
	last quart.	28	12	0
	new moon	5	16	14
Octob.	first quart.	12	8	15
	full moon.	20	0	10
	last quart.	28	4	41
	new moon	4	2	2
Novēb.	first quart.	10	19	0
	full moon.	18	19	0
	last quart.	26	19	10
	new moon	3	12	21
Decēb.	first quart.	10	9	42
	full moon.	18	14	31
	last quart.	26	7	12

The Golden number of this year is 16. the Epact 16. Roman Indiction 2, Sunday letter C, the after-winter 7 w. 2. da. Quadrageſ. the 21. of Febr. Eaſterday the 4 of April, Aſcen. 13 of May Whitſ. the 23 of May, Adv. the 28 of Nov. there will be 5 Eclipſes, 2 of the moon, 3 of the Sun both of the Moon, & the midle of the ſun ſhalbe ſeen in our Horizon the 1 of the moone the 25 May, 5 ho. and 57 mi. the 1 of the ſun, 9 June at the 19 ho. 57 mi. the 3 of the ſun the 4 of No. 3 ho 9 mi. and ſhalbe ſeene of us the 4 will bee of the moone the 18 of Nov. 19 ho. 34 mi. the 1. of the ſun 4 of Dece. 12 ho. 35 mi. & il ſhew it ſelfe in the ſ. ly parts of the world, under our Ho.

Almanach for the yeare 1650.

	New ſtile, Moone.	da.	ho.	mi.
	new moon	1	23	0
	first quart.	9	4	6
January.	full moon.	17	8	52
	last quart.	24	17	6
	new moon.	31	11	12
	first quart.	8	0	58
Februa.	full moon.	16	0	38
	last quart.	23	1	15
	new moon.	1	23	58
	first quart.	9	22	9
March.	full moon.	17	14	40
	last quart.	24	8	28
	new moon.	31	13	56
	first quart.	8	17	18
April.	full moon.	15	23	52
	last quart.	22	15	30
	new moon.	30	5	0
	first quart.	8	9	0
May.	full moon.	15	8	15
	last quart.	21	23	24
	new moon,	29	20	33
	first quart.	6	21	29
June.	full moon.	13	15	30
	last quart.	20	9	54
	new moon.	28	11	50
	first quart.	6	7	0
July.	full moon.	12	22	22
	last quart.	19	22	20
	new moon.	28	2	28
	first quart.	4	14	33
Auguſt.	full moon.	11	6	42
	last quart.	18	14	16
	new moon.	26	16	0
	first quart.	2	20	56
Septēb.	full moon.	9	15	34
	last ſuart.	17	8	37
	new moon.	25	4	46
	first quart.	2	3	4
Octob.	full moon.	9	3	50
	last quart.	17	4	20
	new moon.	24	16	52
	first quart.	31	10	12
Novēb.	full moon.	7	19	28
	last quart.	15	23	43
	new moon.	23	4	17
	first quart.	29	19	32
Decēb.	full moon.	7	13	46
	last quart.	15	17	26
	new moon.	22	22	44
	first quart.	29	8	4

The golden number is 17. the Epact 27, the Romane Indiction 3, the ſunday letter B the after Winter 9 weekes 1 daye, Quadrag. the 6 March, Eaſter the 17 of April, Aſcenſiō the 26 of May, Whitſunday the 5 of Iune, Advent the 27 of No. 4 Eclipſes 2 of the ſun, 2 of the moon, which may be both of thē ſeen of us in the evening at 8 ho. 41 mi. the 2 of the moone the 7 of No. in the morning 20 ho. 14 mi. theſe of the ſun fall both under our Horiz. the 1 will be ſeen in the ſoutherly parts of America as in Peru, the other faleth on the eaſt of our Hor. will be ſeene in India and Perſia and that extra Gangem.

Almanach for the yeare 1651.

New stile.

	Moone.	da.	ho.	mi.
Ianuary.	full moon.	6	9	14
	last quart.	14	8	34
	new moon.	21	1	24
	first quart.	27	23	40
Februa.	full moon.	5	4	16
	last quart.	12	20	29
	new moon.	19	11	47
	first quart.	26	18	0
March.	full moon.	6	21	19
	last quart.	14	5	6
	new moon.	20	22	35
	first quart.	28	13	18
April.	full moon.	5	11	37
	last quart.	12	11	33
	new moon.	19	10	22
	first quart.	27	8	0
May.	full moon.	4	23	13
	last quart.	11	17	2
	new moon.	18	23	7
	first quart.	27	1	14
Iune.	full moon.	3	8	12
	last quart.	9	23	0
	new moon.	17	12	54
	first quart.	25	16	56
Iuly.	full moon.	2	15	38
	last quart.	9	6	44
	new moon.	17	3	26
	first quart.	25	4	43
Auguſt.	full moon.	31	22	26
	last quart.	7	17	9
	new moon.	15	18	46
	first quart.	23	15	0
Septēb.	full moon.	30	5	50
	last quart.	6	6	45
	new moon.	14	10	31
	first quart.	21	23	19
Octob.	full moon.	28	14	57
	last quart.	5	23	4
	new moon.	14	6	3
	first quart.	21	2	32
Novēb.	full moon.	28	2	19
	last quart.	4	19	40
	new moon	12	16	34
	first quart.	19	13	56
Decēb.	full moon.	26	16	30
	last quart.	4	17	7
	new moon.	12	5	38
	first quart.	18	22	32
	full moon.	26	9	80
	last quart.	31	19	35

The Golden number is 18, the Epact 8, the Romane indiction 4, ſunday letter A the after winter 8 weekes, Lent the 26 Februa. Eaſter the 9 of April, Aſcenſiō the 11 of May, Whitſunday the 28 of May, Advent the 3 of Decemb. 2 Eclipſes of the ſun, but neither of both ſhall be ſeen in our Hemiſphere the 1 ſhall be the 19 of Aprill, 10 ho. 41 mi. & ſhalbe ſeen in Califurnia, and in the weſterne ſea about the Tropick of Cancer, the 2 of the ſun the 4 of Octob. 2 ho. 58 mi. it will be ſeen in ſome places of Africa about Cabo Verde, in Braſilia, and in the ſouth parts of America in Peru, that of the moon ſhall be ſeene of none, the darkening being little,

To the Book-binder.

Place the Cardes thus:

In the firſt Part.

Numb.	*Before*	*Folio*
1,2,3		1
4		6
5		13
6		23
7		27
8		32
9		37
10		41
11		45
12		57
13		62
14, 15, 16		66
17		70
18		77
19,20		81
21		87
22		89
23		101

In the ſecond Part.

Numb.	*Before*	*Folio*
2, 25		1
26		9
27		13
28,29		17
30		23
31		30
32		37
33		46
34		51
35,36		57
37		66
38		74
XXXVIII		81
39		87
40,41		90
42		94

The first Part

THE FIRST BOOK

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

The Description of the whole

NORTH-SEA.

With Privilege of the high and Mighty Lords,
the States Generall, for twvelve yeares.

Printed at Amsterdam,

By Iacob Columne, on the Water, in the Fierie
Columne, Anno M. DC. XL.

ENGELANT.

NEDERLANT.

Met Privilegie der Ed. H. M.
Heeren Staten Generael
voor twaelf jaren.

Doggers

Lubeck

Wilmer

Rostock

Groningen

Amsterdam

Antwerpen

Brugge

Londen

Yarmouth

Lowestoft

Harwich

Sheppey

Calais

Dunkerk

Oostende

Nieuport

Vlie

Texel

Eems

Ems

Weser

Elve

Bremen

Hamburg

Emden

Delfzijl

Terschelling

Ameland

Schiermonnikoog

Rottumerplaat

Rottumeroog

Borkum

Norderney

Juist

Baltrum

Langeoog

Spiekeroog

Wangerooge

Schouwen

Goeree

Walcheren

Zeeland

Vlieland

Terschelling

Ameland

Schiermonnikoog

Rottumerplaat

Rottumeroog

Borkum

Norderney

Juist

Baltrum

Langeoog

Spiekeroog

Wangerooge

Helgelant

Oosterrysen

Lesum

Wero

Ysselmonde

Rosenburg

Isenfoord

Rotthilfoord

Dreber

Elsenbore

Roskilde

Malmoe

Landskrona

Helsingborg

Helsingoer

Kopenhagen

Malmoe

Landskrona

Helsingborg

Helsingoer

Kopenhagen

Pascaerte vande NOORD-ZEE,

Beschreven door Iacob Aertsz. Colom.

Duytsche mylen 15 voor een graedt

Spaensche mylen 17 ½ voor een graedt

Engelse en fran. mylen 20 voor een graedt

NOORWEGEN.

Orcades

Hitland

Kimmen

Aalborg

Bergen

Stockholm

Ornaell

Swinae

Bremerlaegh

Roomsdael

Drontem

56 57 58 59 60 61 62 63 64

ENGELANDT.

NEDERLANDT.

MECKLENBORGH.

ZEELANDT.

Doggers

Met Privilegie der Ed. H. M. Heeren Staten Generael voor twaelf jaren.

Pascaerte vande NOORD-ZEE,

Beschreven door Iacob Aertsz. Colom.

NOORWEGEN.

Orcades

Hitland

Fulo

Feril

S. Magns foort

Hamburgers haven

Hanglip

Iello

Olsto

Ximmen

Solmersfoort

Oldesom

Ornaell

Swinoe

Duytsche mylen 15 voor een graedt

Spaensche mylen 17 ½ voor een graedt

Engelse en fran. mylen 20 voor een graedt

Duytsche mylen 15 voor een graadt
Spaansche mylen 17½ voor een graadt
Eng en Fra mylen 20 voor een graadt

OCEANVS

HISPANIA

Portugal

Galli

Britannia

Hollandia

Frisia

Germania

Bohemia

Polonia

Hungaria

Italia

Provence

Lombardia

Sardinia

Minorca

Sevilla

Granada

Murcia

Valentia

Catalonia

Navarra

Biscaia

Bordeaus

Rochelle

Nantes

Brest

Calais

Dunkerk

Sluys

Middelburg

Vlissingen

Amsterdam

Enchuysen

Texel

Harlingen

Groningen

Emden

Bremen

Lubeck

Hamburg

Embden

Dantzig

Wien

Prag

Venetia

Genoa

Napels

Sicilia

Malta

Algier

Tunis

Fez

Marocco

Tripoli

Barbaria

Gibraltar

Lissabon

Porto

Aveiro

Coimbra

Lisbona

Setuval

Cabo de Sagres

Cabo de Roca

Cabo de Finisterre

Cabo de Ortegal

Cabo de Penas

Cabo de Prior

Cabo de Tortosa

Cabo de Palos

Cabo de Gata

Cabo de Espichel

Cabo de Sacratif

Cabo de Trafalgar

Cabo de Espartel

Cabo de Bona

Cabo de Tenes

Cabo de Gardafui

Cabo de Buena Esperanza

Cabo de Verde

Cabo de Bona Esperanza

Cabo de Bona Esperanza

Cabo de Bona Esperanza

OCCIDENTALIS

SPITSBERGE

ISLANDT

SCOTLAN-D

NOORWEGEN

SWEDEN

FINNEMARKEN

Finmarcken

LAPLANDT

Swarten hoeck

Hoey Eylandt

Jan Mayen eylandt

Noord Caap

Beeren Eylandt

Rekel

Mouz klip

Walfisch

S. Kilda

Lewys

Skye

Barra

Ascaro

Orcades

Fula

Ferii

Hitlandt

De Rhamen

Langelandt

Anstoo

Kandalex

Ombar

Coertsandt

Tromsondt

I. Loppen

Schipholm

Noordkyn

Eng en Fra mylen 20 voor een graadt

OCEANVS

Nieuwe
PASCAARTE
op hare rechte
Distantie en
streckingen
beschreven door
IACOB[illegible]SZ
Col[illegible].

Alga
Portu
HIS
PAN
Galis
Bilcai
GI
Granada
Murcia
Valentia
Catalonia
BARI
Provence
Lom
bardia
ITALIA
Sardinia
Corsica
Sicilia
Malaga
Almeria
Tortosa
Barcelona
Minorca
Majorca
Bordeaus
Rochelle
Nantes
Brest
Brabant
Duytschland
Pruyssen
HVNGA
Istria
Croatia
Dalmatia
Venetiæ
Roma
Napoli
Genoa
Savona
Marsilia
Toulon
Cant. Eylanden
POPVLI
DA VICTORIAM
TVO DEVS
Serlinges
Finisterre
S. Barlemgos
Seins
Heisant
Sevilla
Gibraltar
Tangerala
Tenerifa
Salvages
Serters
Porto Santa
I. Madera
Pantalaria
Lipari
Stromboli
Zante
Cefalonia
Candia
Cipro
Rhodus
Malta
Tripoli
Tunis
Bona
Bugia
Oran
Tremecen
Fez
Mequinez
Salle
Azamor
Mazagan
Arzilla
Tanger
Ceuta
Alcazar
Tetuan
Salee
Mamora
Larache
Rio del Oro
C. de Gata
C. de Palos
C. de Berg
C. de Ferro
C. de Spartivento
C. Passaro
C. Leucata
C. Narbona
C. Creus
C. Martin
C. Finisterre
C. de Roca
C. Espichel
C. de Sagres
C. de Cruz
C. de Palmas
C. Blanco
C. Verde
C. Mesurado
C. Tres Puntas
C. de Lopo Gonsalvo
C. de Bona Esperanza
C. de Agulhas
C. de Buena Esperanza
C. de Diego Alvarez
C. de Natal
C. de Corrientes
C. de Santa Maria
C. de Santa Augustin
C. de Santo Antonio
C. de Frio
C. de Todos los Santos
C. de Santa Maria
C. de Santa Augustin
C. de Santo Antonio
C. de Frio
C. de Todos los Santos

OCCIDENTALIS

SPITSBERGE

Swarten hoeck

Hoey Eylandt

ISLAND

Roket

Mosc klip

Walkas

S. Killa

Lewys

Skye

Ronk

Barra

Ascaro

Orcades

Fulo

Feril

Hitlandt

De Kimmen

SCOTLAN D

Jan Mayen eylandt

NOORWEGEN

Langelandt

Anduo

DENEMARKEN

SWEDEN

Finmarcken

Tromsondt

I. Leppen

I. Sueron

Schipholm

I. Ingelt

Noord Caap

Beeren Eylandt

Kandalex

Omba

Soloski

Cassarava

Warsiga

Kildin

LAPLANDT

Aboo

Dagerort

Coerlandt

Oostvinlandt

Lyflandt

Vlaamse Eylanden

I. Flores

I. Cuervo

I. Madera

Fajal

I. del Pico

I. S. Georgy

Graciosa

Serters

Porto Santo

Tercera

S. Michiel

S. Maria

Formigas

RVSLANDT

I. Colgoeu

Novazemla

Pruyssen

Elbing

Dantzig

't Amsterdam
Bÿ Jacob Aertsz.
Colom opt
Water.

AME
LANDT
Hoëlem
Lange Ach
Campersandt droogh
Colediep grondt
Born rif
Amelander gat
Coedijk
DER
SCHEL
Hoorn
Middelgat
LING
Vlieter gat
Vlie
LIE
LANDT
Grind
Gronde-plaet
Ruyte Gat
Ruyte Sandt
Westerdroog Sandt
Westerdroog Gat
Westerdroog Sandt
Westerdroog Gat
Westerdroog Sandt
Westerdroog Gat

Oldnaerden
Naerden
Muijerbergh
Abtyns sandt
campus
't Slot
Muijden
weesp
Emsloirt
Ems
Takezijl
Vreck
Minnes
Horich
Workum
Derwisch
Warns
Hindelopen
Stavoren
Hoff
't Val van Vreek
Stickhuyser sandt
Ton op de Hoßtrode
Noorder gat
Vrieschе plaat
Ton op de Creupel
Munnicks sandt
Wagenpat
Enchuysen
Broecker oort
Grootebroeck
Lutkebroek
Leeck
Hem
West-Vriesland
Schellinchout
Sunder Ton opt Wieringer Vlack
't Hornicker hop
Medenblick
Tuisck
Hoorn
Marcken
Edam
Gouw zee
Wormer
Jaarsm.
La Mer Meridionale
la Fleuve du Flie.
et les Trous du flie.
et d'Amelandt

Pampus.

The Hout
ibbe.

The first booke of the Firie Columne.

CONCERNING

The Eastern and Northern Navigation.

Containing

The description of the North Sea, the coast of Holland, Friesland, Halsten, Iutland, Meklenburgh, and Denemarck to Valsterboen, in the Iland of Rugen, and with all the coast of Norway to Dronten, as also the east side of England and Schotland.

The first demonstration,

Where in

Are described the South sea, the Vliestreame, the Vlie, and the channell of Ameland.

Pampus. FOR to saile from Amsterdam to the Fall of Vrck, you must keep the middle of the channell, in sailing to Tyoort, & from thence over Pampus, with a shipp of great draught, that drawerh tenne foot or more, keepe Marcken church without to the land of Udam, called Schyteldoecks-haven, soo long untill that the steeple of Zuyderwouw come past Kinnigherbeurt, whichare the houses half wais betwixt Schiteldoecks-haven & Durgerdam, goe then towards the land east, untill that the New church of Amsterdam come about Durgherdam, keepe that so standing, untill that the curch of Weesp be come past the House or Castle at Muyen, so that it do stand somwhat nearer to Muyen then to the House, keepe Weesp standing so, untill that Edam come without the east end of Marken. In this fare waie it is a foote deeper, then if you sailed right through.

For to avoyde Muyen sand: men were wont to bring the houses which were wonte to stand upon Tyoort to the southwards of the Heyligher-stee at Amsterdam, thereby you can make some reckoning, they are good longst markes: when Monnickedam is about the west end of Schyteldoecks-haven, and the house at Muyen betwixt Weesp and the church at Muyen, then are you thwart of Muyen sand. For to saile right through over Pampus, then keepe the steeple of Diemen over or about the point of Tyoort, so long as you can see Tyoort, that is a right longst marke for to saile over Pampus.

The Houtribbe. When you are come thwart of the east end of Marcken, goe then on northeast, or somewhat more easterly towards the Fall of Urck, which is seven leagues: when you are come with a great league of Urck, you shall meete with a hard sand, called the Houtribbe, lying southeast and northwest thwart over the Fare waie, there is na more water upon it, then upon of the Flat af Wieringen, or of Freesland, you shall finde also no deeper water there then right through. When Enckhuysen leyth northwest and northwest and by west from you, then you are upon the Houd-ribbe. Before that you come against the sand, you can by night see the fire upon Urck. When that Urck or the fire is more northerly then northeast from you, and that you get shoulding, then that is certainly of the Houtribbe: for so you cannot come to neare the Enckhuysen sand. When you como from the southwards, you are not about the Enckhuysen sand before that de Curch upon Vrck come without the little village of houses, which is then east & by south, and east southeast from you: if that then you goc away n. w. and by w. or w. n. w. you shall runne close alongst by the side of the sand. With a ship of great draught, bring the church a good wais through the houses, untill that it stand e. s. e. from you, then goe bouldly on n. w. & by w. or keepe Medenblick without the point of the Ven, and so yo shal not come to near neither to sand nor showlde. Likewise if you come from the northwards, & bring Vrck not more easterly then e. s. e. from you, then you cannottake hurt also of the Enckhuysẽ fand. Frõ Vrck to the buyes upon the Cripple & Hofstede, the course is n. w. & by w. with that course you may runne all alongst unto the souther buye upon Wieringhen Flat: in turning to windwards, you may well bring Medenblick a little within the point of the Ven, but when Medenblick is without it, then you are in the right farewaie. Marckx of Enckhuysẽ sand.

Betwixt Vrck and the buye upon the Hofstede northeast somew hat easterly from the steeple of Enckhuysen leyth a little plate of hard sand, lying towards the end of Enckhuysen sand, which is not deeper then the Frees Flat, about to the eastwards of it; is the deepest water, but about to the westwards of it (by some called the Kattegat) you shall be sooner about the High horne, or the Enchuysen sand, and it is good for ships that draw but little water.

The thwart markes of the buyes, both upon the Cripple and Hofstede; are Grootebroeck & Hem (two sharp steeples) right one in the other, and Warnis, a lirtle sharp steeple in Freesland to the south side of the Cliffe of Staverne, then you have the length of these buyes, which lye each of them in three fathome, the one on the east shoare, and the other on the weff shore upõ the tayle of the Cripple. There is in the right fare waie, two foot lesse then five fathom, & soft ground. When the steeple of Medenblick commeth to the northwards of the house of Medenblick, so fare as the house is broade, then you are cleare of Cripple sand, and past it; goe then on northwest, and northwest and by north to the buye upon the Creyl, according as the winde and tyde shall be, the right farewaie there, is deep five fathom scarce. Thwart of the Creyl. in sailing out, or about the Creyl, in sailing in, that is a little within the Creyl on the north shoar, leyth alongst the reach (towards the buye upon the Hofstede, a hard sand or plate, called the South Creyn, upon which there is no more then twelve foot water, at low water, betwixt that banck and the north shoare, it is three fathom deepe, and soft ground, and to the southwards, or the westwards of it, foure fathom and an halfe. When Mirnes, a litle flat steeple in Freesland, comethover a long countriehouse to the southwards of the cliffe of Staverne, then you come right thwart of that foresaid plate. Marckes of the Hof-stede & Cripple. The Cryel South Creyl.

The markes of the buye upon the Creyl, are the sharpe steeple of Twisch over the Cornemill to the w estwards of Medenblick, & that little flat steeple of Mirnes to the south side or east side of the cliffe. The right farewaie there is four fathom & an half, & five fathom deep, soft ground, the Marcks of the Creyl

buye lyeth in four fathom, if need require, men may runne wel a cables length abouth to the eaſtwards of it. From the buye upon the Creyl to the buye upon the Freeſe plate, the courſe is north and by eaſt: When the ſteeple of Twiſck commeth a little to the northwards of Medenblick, then keepe them ſo ſtanding, ſo long as you can ſee it, and then you ſhall not ſaile within any ſhowldes betwixt that plate & the Creyl.

Freeſe-plate.

Betwixt the buye upon the Creyl, and the Freeſe plate, on the weſt ſhoare, alongſt the Reach, lyeth a hard ſand, called Monick-ſand, which men may be foul of, if they runne ſomewhat to farre over to the weſtwards.

Monnick-ſand.

When you are come about the Creyl, you may goe on north and by eaſt (with a ſhippe that draweth but little water) over the tayle of Broad-ſand, right to the buye upon the ſand, called Weſt-worckum, but with ſhippes of great draughts, you muſt keep the right farewaye. For to finde the deepeſt water upon the flat: bring Pandragen, a little flatte ſteeple (ſtanding to the weſtwards of Worckum) to the weſtwards of a little village, which ſtandeth alſo to the weſtwards of Worckom, and ſaile ſo right with it, that is a good longſt marke of the buye upon the Freeſe plate, and ſo you ſhall runne right with the buy, when as that Warnes and Mirnes come one in the other, to the northwards of Staveren, then you have the length of the buy, which lyeth on the weſt ſide of the Plate, you muſte runne alongſt to the weſtwards of it, there is the deepeſt water: when you com from the northwards, you might ſaile within the Freeſe-plate on the eaſt ſhoare.

Being paſt the fore ſayd buye upon the plate, goe on northnortheaſt, untill that Pandraghen come betwixt the little villagie and Voorwolde. Ifthat you have then the cliffe through Staveren, then you have the deepeſt water upon the ſhowldeſt of the flatte, then men runne commonly a little more northerly unto the buye in the Bight, and alongſt to the weſtwards of it, which lyeth right in the farewaye, in ſixteene foot, but alongſt to the eaſtwards of the buye is the deepeſt water, the farther into the Bight towards Freeſlandt the deeper. The marke of this buye, is the little flatte ſteeple of Mirnes on to the ſouthwards of Molqueren. Bring that foreſaid little flat ſteeple in Molqueren, and keepe it ſo ſtanding, and then you come in the farewaye of the buye of Weſt-worckum, that is a very good marke, when the buyes are taken away.

Buye in the Bight.

The old thwart markes of the buye in the Bight, are Mirnes, Molqueren, Hemelum, and a little long village, when they ſtand in four parts. Betwixt the buyes upon the Freeſe plate, and in the Bight, is the ſhowldeſt of the flatte. When the buye in the Bight is on your broad ſide, then go on north and by weſt, ſomewhat more weſterley, unto the buye of Weſtworckum, which lyeth on the eaſtſhore in 16 foot at low water, upon theſe marks: a little ſharpe ſteeple, far within the land, called Harich, comet over a little village, to the northwards of Hinlopen, called Dertwiſch, the right deep thwart ofit is three fathom. The old markes are two villages next to Mackum, upon the water ſide, ſtanding n.e. off from it, when theſe ſtand a little aſunder, one from the other, you ſee yet two little ſteeples ſomewhat to the northwards of Bolſwaert, almoſt one to the other, neare about as the other upon the water ſide ſtand aſunder, the one is called Idſegahuyſen. The thwart markes are a high houſe on the eaſt end of Coudom, that commeth within a capſtone barres length to the ſouth end of Hinlopen. From thence to the buye upon Yghelhoeck, the courſe is north, the markes there of are, a little ſharpe ſteeple wite the firſt long village to the northwards of Worckum, called Geeſt, when that little ſteeple cometh in the innermoſt ſwampe of that long village, then you have the buye, that is a good thwart mark: the longſt marks are, the ſharpe ſteeple of Pingom over the flat ſteeple of Coorenwaert upon the water-ſide, and Pandragen to a little houſe to the northwardes of the villagie with the ſwamp, or when the mil of Staveren ſtandeth betwixt the towne and the Blockhouſe of Stavern, theſe are all good longſt markes of the buye upon Yghelhoeck.

Buye of VVeſt-worckum.

Yglehoeck

From Yghelhoeck to the Middle ground the courſe is north, the right deepe in the Middleground is 7 fathom in the farewaie betwixt Weſtworkum and Ygelhoeck the right deep is four fathom, ſoft ground, the eaſt ſhore is flat and the weſt ſhore ſteep. The buye of the Middleground lieth upon theſe marks: the two ſharpe ſteeples Arum and Pingom one in the other about northeaſt from you: or Bolſwert right to the nordwards of a Countrie houſe, to the northwardes of Mackum, theſe are good thwart marks of the Middleground. The longſt markes are: kinſwaert (that is the runner) commeth behind the church of Surich, then you are right in the farewaie. The Church of Surigh ſtandeth upon the waterſide, upon a pointe that lyeth out aboute northeaſt and by north from the buye, or wen the flatte ſteeple of Wynaem (to the northwards of Harlinge) commeth betwixt Midlum and the eaſt end of Harlinghen, then you are right in the Middleground, on wich ſide that Wynaem ſtandeth neareſt, that ſhore you are alſo neareſt unto, the weſt ſhore is ſteep; the eaſt ſhore indifferent flat, you may runne over it in three fathom, and come againe in five fathome towards Frieſland. From the Middleground outwards to the Flye, you can ſail within no tailes of ſands on the weſt ſhore.

Middle-ground.

Old Flye.

Being paſt the buye in the Middleground, then goe on northnorthweſt unto the buye upon Swanebalgh, which lyeth in three fathom on the eaſt shore, the thwart marks there of are bolſwaert over a litle short houſe to the ſouthwards of Cornwaert. When you runne over betwixt the buyes of the Middleground and Swanebalgh on the eaſt ſhoare more eaſterly then in three fathome, that you come againe in four or 5 fathom, you might (in ſayling out) ſail behind the ſhoulds of Swanebalgh, or when you are bound in behinde the ſhowlds of the Middleground, the weſt ſhoare thwart of this, you may ſound in four fathom, or 3 fathom and a half, over againſt the buye upon Swanebalgh, on the weſt shore is good ground for to ancker in.

Swane-balgh.

VVolfs-hoeck.

Schortun or the buye upon the Elbow.

From the buy upon Swanebalg to the buy upon Schuyteſand the courſe is n. w. ſomewhat northerly: the thwart markes there of are Wynaem over the heigheſt part of Harlingen: the longſt markes are, Bolſwaert the northwards of the Sluys, which lyeth to the northwards of Woens: this buye lyeth in 6 fathom on the eaſt shore, upon a taile or point, which you might ſaile within when you ſaile out, the right deepe thwart of it is 7 and 8 fathom, the weſt shore is indifferent flat, which you may ſounde in 4 fathom, the eaſt shore is ſteepe, but a little without the buye it is flatte all alongſt to Keeshoeck, & you may ſound it all alongſt unto the Sloot. In ſailing up, you might ſail within the weſt shore over againſt Schuyteſand, or a litle to the ſouthwards of it in 3 fathō, or 3 fathō & a half into a Deadbalgh, behind a taile of ſand, called the point of the Waert, but keeping in 4 fathom from that shore, you cannot take hurt of it. In ſailing up with a forfloud, keep the eaſt shore, or els you should be lightly carried therwith into the foreſaid balgh, behind that Waert, before you should be aware of it. Upō the point of that waert ſtandeth a drift beacon, & 2 to the northwards or the weſtwards of it, which men do call the beacons of Claeſoomen, and to the ſouthwards of it ſtandeth a beacon upō Dominicus plate, or (as the Pilots do name it) Meynſen plate. The marks for to ſail alōgſt this long reach are: Mackum with a mill upon the waterſide, & a village with a litle flat ſteeple to the ſoutwards of Mackum, called Idſegahuyſen, whē Pandragen cometh betwixt mackum & that village then you shal gō cleare of that foreſaid taile or Deadbalg: If Pandragen come neareſt to Idſegahuyſen, then you are too near the foreſaid taile or plate, or if Pandragen come neareſt to mackum, then you are too neare the eaſt shore.

Schuyte-ſand.

Point of waert.

Schierings hals.

Longſand

Monck-ſoot.

Frō Schuytſand to the buye upon Keeſhoeck, the courſe is w.n.w. or n.w. & by w. according as the wind & tide shall be. In that long reach goe litle more then half tides alongſt the deep, the afterfloud & fore-eb fall thwart over there to the weſtwards, & the after-eb & fore-floud right contrarie to the eaſtwards. The marks of te buy upon Keeshoec, are Franiker ſteeple betwixt the mille & the towne of Harlingen, or to the maſtes of the Shippes which lye in the haven.

Keeshoeck

The Inchor.

This

This buy lyeth on the eaſt ſhore, the right farewaye thwart of it is eight, nine and ten fathome deep.

Betwixt Keeshoeck and Schuyteſand, or betwixt the beakons of Claeſoomen & the pointe of the water lyeth a litle narrowe plate alongſt the reach, allmoſt in the middeſt of the farewaie neareſt to the weſt ſhoare, whereupon it is not deeper then four fathom, or three fathom and an halfe, when men turne to windewardes they are over it with two or three caſts of the lead.

Old Flye. Weſtwards from the buye upon Keeshoke lyeth the Old-Flie, it lieth in firſt ſouthſouthweſt, and then forth to the buye upon the Neſſe, in the Teſſel ſtream. The after floud with the foreebb fal in verie ſtrong into this channel. In ſailing upwards you might ſail within it in four fathom. The marks of it are, the ſteeple of Franiker right to the ſouthwards of the ſteeple of Harlingen. From thence outwards off unto Schieringshals the weſt shore is verie ſteep, in eight fathom you shalbe cloſe by the shore. The fareway betwixt theſe buyes, and thwart of the buye upon the Ellbowe is tenne and eleven fathom deep.

VVolfshoeck. From Keeshoeck to Wolfshoeck the courſe is firſt northweſt and northweſt and by north unto the buye betwixt them both, by ſome called the Schor tun, and by the Pilots the buye upon the Ellebowe: and from thence to the buye upon Wolfshoeck, north, or ſomwhat more eaſterlye, which lyeth in four fathome on the eaſt shore.

Schortun or the buye upon the Ellbow.

Schierings hals. From the buye upon Wolfshoeck unto the buye upon Schieringshals the courſe is northnorthweſt, and northweſt and by north according as the winde and tyde shal be. To the northwards or to the eaſtwards of the buye upõ Wolffhoecke goeth up a broade bight ſoutheaſt farre into the groundes, ſo deep as the right farewaie, called the Inſchot, comming in you might ſaile within it in ſeven fathome, the forefloud falleth from Schieringshals verie ſtrong into it, and the foreebbe to the contrarie, very ſtrong out of it upon the taile of Schieringshals, whereby maine ships are miſcarried.

The Inſchot. Schieringshals is a tayl of ſand, which shooteth off from the weſt shore, upon it lyeth a white buye in three or four fathome, comming in from without, men might ſaile within it in ſixe fathome, the right deepe betwixt Wolfshoeck and Schieringſhals is nine fathom.

Longſand From Schieringshals to Longſand, the courſe is northweſt, and northweſt and by north, betwixt them both on the weſt shoare it is shallow water, and the beſt roade of al the Flye ſtreame, there goeth alſo little tyde. The right deepe is eight, nine & then fathom, Longſand men might ſail within it on the eaſt shore, in ſailing up, but if they keep themſelves in ſeven or eight fathom, they shall not come to neare neither of Longeſand nor Schieringshals. When the eaſtermoſt houſe upon Grindt cometh a little to the northwards of the weſtermoſt, thẽ you have evẽ the length of the buye upon Longſand. From Longſand to the Sloot the courſe is forth northnorthweſt, the right deep is tenne fathome, or men runne alongſt by the beakons upon Crakeſand, untill they come into the Sloot.

Point of waert. Monckloot.

The Iland Flieland is three leagues long, and a land verie good to be known: upon the eaſt ende lye high white ſand-hilles, and to the weſtwards it is a land ful of ſhort low hommocks or nobbes. Upon the weſt ende ſtandeth a Church with a mill to the eaſtwards of it. From the weſt end ſhooteth off a riffe a good waies into ſea. To the weſtwards of this riffe, betwixt Flielanſt & the Eyerland goeth in a deep, called the Weſtergatte, or Weſtflieland deepe, which is not for great ships, buth onely for Fisher boates, there is not above eight or ten foote water. Upon the eaſt ende ſtandeth a mill with a cape, the which are markes for to avoid the grounds, which lye before the Flye.

The eaſt end of Flieland, and the weſt end of Teſſel lye eight leagues aſunder.

Keeshoeck To the eaſtwardes of the Flyeland lyeth the Schellingh, which is aboute three leagues long. Upon it ſtand four churches, with one chappell, the weſtermoſt is a high flat ſteeple called Brandaris. About the middeſt of the Iland ſtand two ſteeples, the weſtermoſt is flatte, called Zeerip: the eaſtermoſt is ſharp, and is called Midlands. To the eaſtward ſtands yet a high sharp ſteeple called the Horn, and a chappell called S. Iohns. Upon the eaſt end lye high white ſand-hills, and upon the weſt end lyeth but one, called the Lit; betwixt Midlands and the Lit it is low Nubby land. Upon the weſt end ſtandeth a cape with a Fire-beakon, where on there is fired by night.

Stortemelck.

For to ſaile into Stortemelck (that is the Land-deepe of Flie-land) you muſt bring the Cape upon the eaſt end of Fly-land, and the mill one in the other, which ſhall ſtand then from you ſoutheaſt & by eaſt, or a little more eaſterly, ſail right in with them, and you shall fall right with the outermoſt buye, which lyeth in five fathom upon the outermoſt point of the long bank, which bank is on the north ſide indifferent flat, ſo that when you come from the north, you may run alongſt by it upon your lead id five or ſixe fathom, and ſo alſo find the foreſaid outermoſt buye. You may alſo (for need) run alongſt ſomewhat to the eaſtwards of the outermoſt buye, over the end of the long banck in three fathom, or 16 foot towards the ſhore, but not to the eaſtwards of the ſecond buye, but a good wayes alongſt to the weſtwardes of it, which lieth even to the ſouthwards of a point of another narrow taile of ſand, upon which thwart of the buye is but eleven foote water, betwixt that taile and the long banck runneth a creek to the eaſtwards into the grounds, of five fathom depth. It happeneth ſometimes that the ſhippes that come over the end of the long banck, and finding again deeper water, think that they are in the right deepe of Stortemelck, and luffe up into it, but they run into the foreſaid shoare or creeke, in betwixt the two tails of ſands, not without great danger with a weſterly winde, where they muſt go out back againe. Comming from the weſtwards alongſt by Flieland in four or five fathome, you shall not alſo faile to run in ſight of the foreſaid outermoſt buye. He that falleth about Stortemelck by night, let him bring the fire-beakon ſoutheaſt and by eaſt from him, and run in ſo right with it untill hee come by the shore, and he shall run alongſt to the weſtwards of the outermoſt buye. In Stortemelck lye ſeven black buyes, and one white buye, in ſayling in you muſt leave all the black buyes on the larboard ſide, and runn alongſt to the ſouthwards of them: and the white buyes on the ſtarboard ſide, like as all other white buyes as well in the Booms-gat, the Ietting, as upon the Flye-ſtreame. The ſecond buye called the outermoſt Droghe dry, lyeth in 11 foot upon the ſhowldeſt of the channel, to the ſouthwards of it alſo is no more then eleven foot water; but a litle within, it is againe fixteen foote deep. The third is called the innermoſt Droghe dry, which lyeth in fixteen foot, the right deep betwixt them both is three fathom. The fourth is called Heyckhook, betwixt this & the third it is in the fareway five fathom deep, over againſt the fourth lyeth the white buye at the ſtrand, thwart of it runneth off a little tail from the shoare, which (in ſayling out) you might ſaile within it. Unto this white buye, or unto the fourth buye from without, it lyeth in eaſtnortheaſt, from the fourth to the fifth about eaſt, and then more and more ſoutherly. The firſt buye is called the outermoſt point buye, the ſixt the middlemoſt point buye, and the ſeventh or laſt the innermoſt point buye. Betwixt the outermoſt & the middlemoſt point buye, neereſt to the outermoſt, runneth off a taile of ſand from the shore, which men might ſaile within when they come in, which groweth out ſometimes as farre as the buye, and then the Deepe breaketh through againe by the shoare, and ſcoureth awaye the taile altogether to the north ſide. From the innermoſt buye you muſt run in all alongſt by the ſtrand of Flye-land, or on ſouthwards to the buye upon the Plate.

Booms-gat.

For to ſail in at the Boomkens-gat, comming out of the ſea, or from the weſtwards: bring the Cape upon the Schelling and the ſteeple of Brandaris one in the other, which ſhall then ſtand from you ſouthſoutheaſt, and ſoutheaſt and by ſouth, , run then right in with them, and you ſhal find the outermoſt buye without the channel in the ſea in eleven fathom, a little without, and to the eaſtwards of the outermoſt point of the ſteepe grounds, which are without upon the north ſide ſo ſteepe, thar you ſhall be in twelve fathom very cloſe to them, whereupon remaineth no more then five foot water. Cloſe to the eaſtwards of the foreſaid Cape ſtandeth a Fire-beacon, whereupon is fired every night, as upon Brandaris. If by night you bring the fires on in the other, or the fire of the Fiere-beacon weſt and by n. & w.n.w. of the fire upon Brandaris, and ſaile in ſo right with them, until you come againſt the ſouth ſhore, you ſhall runne cloſe alongſt by the outermoſt buye: when as then the fire upon Flyeland commeth to be ſouthſouthweſt, or a little more weſterly from you, you ſhall be thwart of the outermoſt buye, or the outermoſt of the ſteepe groundes. The foreſloud falleth eaſtnortheaſt thwart over this channell, almoſt untill halfe flood before it ſetteth right in, & contrariwiſe the fore-ebbe falleth alſo weſtſouthweſt thwart over the channell, almoſt untill half ebbe before it ſet right out: therefore it is beſt with a northeaſt or eaſterly winde, and a fore-ebbe to ſeek to the ſhore ſomewhat to the eaſtward, of Cape and ſteeple, and run alongſt by it in five fathom, which is clean & flat all alongſt untill within Cape and ſteeple.

The ſecond buye lyeth in foure fathom, within the outermoſt point of the ſteep grounds, lying from the firſt about ſouth and by weſt. Betwixt theſe two firſt buyes it is twenty foot deep upon the ſhowldeſt of the channell thwart of the foreſaid poynt of the ſteepe grounds, which are at the end ſo ſteepe, that it is cloſe to them 18 foot deep, the eaſt ſide is flat riſing ground, & ſhowldeth by little and little from eighteen to ſixteen, fourteen, and twelve foot. To the eaſtwards of the ſecond buye, the fareway is three fathom deepe, to the weſtwardes of it, is five fathom, but not farre, therefore you may not run far alongſt to the weſtwards of it, with a fore-ebbe you ſhould bee very ſoone on againſt the ſteepe grounds, which are on the innerſide alſo very ſteepe. The eaſt ſhore you may run as neere to it as you will upon you lead, but with a ſtorm the ſea breaketh very much upon it, and is in a breach al alongſt until the ſecond buye. The ſecond & third, lye ſouthweſt & by ſouth from the other, the fourth and fifth lye ſouthweſt and by weſt from the third and from each other and north and by eaſt, the third in five fathom on the eaſt ſhore, there you may ſaile about eaſtward, there the ſhoar is plaine and even, and the fareway on the weſt ſide of the tunne neare ſeven fathom deep. The fourth aclled the buye upon Feyhoeck, lyeth alſo on the eaſt ſhore (but neerer then the third) in five fathom, which men may alſo ſaile alongſt to the eaſtwards of it, the fareway to the weſtwards of it, is nine fathom deepe.

Vntill you be paſt that buye, you may ſaile in frõ without upon your lead alongſt by the eaſt ſhore, & alſo by night or dark wether, but from thence inwardes, it is alſo ſteepe. The fifth buye, called the outermoſt buye upon the Boſſe, lyeth in foure fathom alſo on the eaſt ſhore, which is there very ſteepe, the fareway to the weſtwardes of it, is eleven fathom deepe. From the outermoſt Boſſe buye to the innermoſt buye upon the Boſſe (which is the ſixth) the courſe is ſouth & by eaſt, which lyeth in 4 fathom cloſe to the ſhore, which is alſo thereabouts very ſteepe, the fareway to the weſtwards of it is 10 fathom deep. From the foreſayd innermoſt buye upon the Boſſe, unto the Robbegat, the courſe is ſouthſouthweſt, the ſame courſe lyeth right through Robbegat unto the point of Flyeland, where in lye three white buyes on the weſt ſhore, and three black buyes on the eaſt ſhoare, betwixt which men doe run through. The outermoſt white buye lyeth from the innermoſt buye upon the Boſſe right ſouthweſt, he that cometh in with a foreflood, muſt ſaile at leaſt ſouthweſt, or ſometimes yet more weſterley, that he may not fall to leewards of the black buye, the foreflood falleth very ſtrong into the Ietting, and the afterflood turneth about again to the weſtwards with the fore-ebb out at Stortemelck, but you may eaſily ſee from one buye to the other. In the entring of Robbegat betwixt the two firſt buyes, it is ſixteen foot deepe, betwixt the two laſt buyes thirteen foot, and in the middeſt five, ſixe, ſeven, and foure fathom. Being through the Robbegat run to the ſtrand of Flyeland, and very cloſe alongſt by it, or to the buye upon the Plate, which lyeth in foure fathom on the eaſt ſhore, which is indifferent flat, but within the buye, it ſhooteth ſomewhat out with a point, and waxeth ſteep.

For to ſaile into the Ietting, the courſe is from the foreſaid innermoſt buye upon the Boſſe, unto the buye upon Hobbeſand alſo ſouth and by eaſt. The fareway alongſt to the weſtwards of the buyes is tenne and nine fathom deep. The Ietting.

From the poynt of the Boſſe unto Hobbeſand lyeth alongſt a ſmal ribbe, upon which remaineth two fathom, and at the deepeſt ſixteen foot water, to the eaſtwards of it there is againe ſixe, ſeven, eight and nine fathom deepe, men may runne alongſt there in times of Ice-drift, or the like, unto the Boots-gat, where is upon the ſhowldeſt eleven foot water, and over the ſhowldeſt there is againe three fathom, and before the Schelling five, ſixe, and eight fathom deepe, there men doe lye as in a haven, in regard the ſands there abouts doe fall drye at low water. In the Ietting lie ſixe black and foure white buyes, the black buyes you muſt leaue on the larboard ſide in ſailing up, and the white on the ſtarbord ſide. From the buye upon Hobbeand, unto the firſt black buye in the Ietting, the courſe is ſouth, and ſouth and by eaſt. The fareway betwixt them is nine and eight fathom deep. About halfe wayes betwixt theſe two buyes, lyeth alſo a white buye on the weſt ſide upon Speckhoeck, to the ſouthwards of it goeth a creeke weſt ſouthweſt, or ſouthweſt and by weſt through the grounds, and commeth out to the northwards of the buye upon the plate againſt the poynt of Flyeland into the Flye ſtreame, there remaineth upon the ſhowldeſt eleven foot water; with a foreflood you muſt ſaile at leaſt weſt ſouthweſt, or rather more weſterly. The ſecond buye in the Ietting lyeth from the firſt ſouth, the fareway betwixt them both is ſixe fathom deepe.

Over againſt the ſecond buye lyeth a white buye on the weſt ſide, upon the point of a taile of ſand, which men might ſaile within, in ſayling up. Betwixt theſe two buyes it is not deeper then two fathom. From the ſecond buye to the third and fourth, the courſe is ſouth, and ſouth and by eaſt, and the fareway three fathom deepe. Over againſt the fourth buye, (called the buye upon the Nakens) lyeth the ſecond white buye upon a point which men might ſail within in ſailing out; within that the land falleth away with a great bight towards the ſouthweſt, there is good ancker-ground and roade in five fathom. From the fourth buye ſaile alongſt by the beakons upon the Nakens eaſt ſoutheaſt on, untill that Brandaris come cloſe by Grindt, but not to it keepe that ſo ſtanding, and run on ſouth, and you ſhall ſaile right upon the buye which lyeth upon the taile of Hendrick tlaers plate, which you might ſaile within on the eaſt ſide. Leaue that on the Larboard ſide, & run alongſt to the weſtwards of it, ſouthſoutheaſt unto the laſt buye, which lyeth upon the ſouth point of the foreſaid Hendrick tlaers plate. Over againſt the beakons upon the Nakens lye on the ſouth ſide two white buyes, the eaſtermoſt upon a taile of ſand, which men might ſaile within, in ſailing off. To the ſouthwardes of it, betwixt the two laſt black buyes, by the weſt ſide, is the roade where the ſhips doe ancker for to light, which are bound to Harlinghen.

Bornriff

NOTE.

Alle the depths here before rehearſed, as well of Stortemelck

melck as of the Boomkens-gat, are ſayd of the loweſt water, at halfe flood is three foot deeper; it floweth upon theſe a foreſayd places with a common tyde fiue and an half or ſix foot up and downe. The numbers of the depths ſet downe in the carde of the Flye and Ameland-gat, are to be underſtood of feet: as for example, by the outer buy of the Boomkens gat ſtand 66, that are 66 foot, or eleven fathom, ſixe foote being reckoned for a fathome.

From the outermoſt Boſſe-buye, or a little within, you may com with a ſhipp to the ſtrand of the Schelling at the Bos in fifteen foot waters, taking no harme. From the uttermoſt Bos-tunn to the Robbegat the courſe is directly ſouth, there you ſhall find on the weſt ſhore a white tunne, from thence to the firſt black tunne, the courſe is ſouthweſt you ſhall finde by the tunne a good landmark, to wit, when the milles come faſt on the north ſide of the Pootdowne of Vlieland. From the firſt to the ſecond tunne, the courſe is ſouthſouthweſt, he which commeth with a foreſludd, muſt by al meanes ſaile ſouthweſt, and ſomtimes more weſterly, ſo that he fall not below the black tunne, the foreſludd falleth with great force into the Ietting, & the afterſludd windeth weſtward with the forebbe, going out at Stortemelck, but you may eaſily ſee from the one to the other before in the Robbegat, betweene the two firſt tunnes, it is 16 foot deep, betweene the two laſt tunnes 13, in the middeſt 4, 5, 6, 7, being before the Robbegat, runne freely cloſe by the ſtrand of Vleeland, or toward the tunne that lyeth on the Showld in 4 fathom, at the eaſt Shoar, which is reaſonable flat, but within the tunne it ſhooteth forth with a corner, and it is ſteepe.

The Ietting.

VVeſter-Booms-Channell.

For to ſaile in the Weſter-Booms-channell, comming in from the weſt, bring the head and the towre of Brandaris into each other, it will be eaſt & by ſouth from you, running ſo in, you ſhal find the outermoſt tunne, there it is 6 fathom water, keep the Cape or head thus ſtanding, untill you com to the ſecond, bring then the towr a great handpike on the ſouth ſide of the cape, and ſail in on it, ſo doing you ſhall ſail betweene a black & a white tunne, where it is 17 foot at low water, from thence you ſhall come to 6 or 7 fathom, & ſo come in right at Bomes-channell.

Ameland-gat.

TWo leagues to the eaſtwardes of the Schelling lyeth Ameland, lying e.ſ.e. and w.ſ.w. foure great leagues. Upon the weſt end of Ameland ſtandth a Cape, & a great thick flat ſteeple, called the Hoelme, the roofe of this church is broken off, but the after fronte with the roofe ſtandeth above the ſide wals, to the eaſtwards of the church of Hoelm ſtandeth a mill, with a houſe to the weſtwards of the mil, alſo a broad flat towre. About the place where Midland-church was wont to ſtand, lye three or foure white ſandhilles, which are low, flat, and long, towards the eaſt end it is nobbie land, with white amongſt it. From the weſt end of Ameland runneth off a riff, almoſt three leagues into ſea, called Born-rif, which is upon the outer ſide verie ſteep: come no nearer it then in 12 fathom, comming from the eaſtwards you cannot ſaile within it, but in ſailing alongſt by it in ſeven fathom, you ſhall not run a bowles caſt along without it.

Bornriffe.

For to ſaile into Ameland gat, comming out of the ſea, bring the cape upon the eaſt end of the Schelling, right over the ſteeple of Horne, which ſhall then ſtand from you ſ.ſ.w. or a little more weſterly, ſaile in right with them, untill that the cape upon Ameland, and the ſteeple of Hoelme are one over the other, then leave the firſt markes, and ſaile in upon the ſecond, and you ſhall finde the outermoſt buye, which lyeth ſomewhat within the outermoſt point of Bornriff. Comming from the weſtwards, run alongſt by the ſtrand of the Schelling in five, or five fathom and an halfe at low water, and you ſhall not fail to ſaile right upon the outermoſt buye, and then the Cape and ſteeple upon Ameland ſhall alſo come one over the other, and ſtand from you eaſt, or a litle more ſoutherly. Comming alongſt by the Schelling in four fathome, you ſhall not ſaile within the Koggedeeps ground; over againſt then lyeth the firſt buye on the ſouth ſide of Bornerif, run alongſt to the ſouthwards of it, keeping the cape & ſteele one over the other, untill you be paſt the ſecond buye, which lyeth thwart of the weſt end of Kamper ſand, the fareway betwixt theſe two buyes is 5 and 6 fathome deep.

Kogdeep grounds.

Kamper-ſand.

Being paſt the ſecond buye, bring the ſteeple ſomewhat to the northwards of the Cape, & goe on eaſtnortheaſt towardes the third buye upon Gerritſhonden, for to avoide the plate which lyeth off from the ſouth ſide, towardes Bornriff, on it lye two white buyes, the firſt over againſt the aforeſaid third black buye, the other over againſt the fourth black buye, lying from the third about ſoutheaſt, leaue the black buyes all on the larboard ſide, and the white on the ſtarboard ſide, and run through ſo betwixt them both, the plate is on the north ſide indifferent flat, ſo that you may run to it upon the lead, reckon wel your tydes, eſpecially be careſull of a fore-ebbe, which falleth very ſtrong over that channell northnorth weſt into ſea over Bornriffe. Betwixt the ſecond and third buye in the fareway it is eight & nine fathom. Betwixt the third and the foreſayd plate ſeven fathom. Being paſt the fourth buye, both ſides are very ſteepe, and the fareway 8, 9, 10, and 12 fathom deepe, goe then in ſouthſoutheaſt, untill that the ſteeple of Holm com over the ſouth point of Ameland where the boats lye, and then you come in the bight, where it is on the ſouth ſide flat, and good anckoring in five or ſix fathom, the north ſhore is very ſteepe.

Gerritshonden.

For to ſaile further into Horſen, go away from the bight eaſtnortheaſt alongſt by the ſouth ſide in five or ſix fathom, ſo long untill Heynooms chamber (being a red tyled houſe) come a handpikes lenght to the northwards, or to the eaſtwards of Hoelm-church, ankor there in five or ſix fathom, you ſhall lye there in good ground, & ſheltred for all winds, alſo there goeth little tyde; in this fareway it is twelve fathom deepe, the north ſhore is there very ſteepe. Theſe foreſayd depth (like as alſo thoſe of the Flye) are ſayd of low water.

Of the tides.

At Amſterdam a northeaſt and ſouthweſt moone maketh the higheſt water.

At Horne, Enckhuyſen, and at Urck, a north and ſouth moone.

Betwixt Cripple-ſand, and the Creyl, a north and by weſt and ſouth and by eaſt moone.

Upon the Frieze & Wieringer flat, a northweſt & ſouth-eaſt moone.

In the Flye & Amelandgat a ſoutheaſt & northweſt moõ maketh high water. Before the Flye the flood falleth to the eaſtwards thwart over the grounds, almoſt untill halfe flood, before it ſetteth into Boomkens gat. Likewiſe the Ebbe to the contrary falleth to the weſtwards thwart over the grounds, allmoſt until half Eb, before it ſetteth right out at the channell. The afterflood turneth about with the fore ebbe & fall alongſt Flyeland out at Stortemelck, but the foreflood runneth right into Stortemelck.

Of the depths about theſe places, and in what depths men may ſee the land.

The Ilands Flyelant, the Schelling, & Teſſell, men may ſee in 15 & 16 fathom. Thwart of the Schelling the ground is white ſand.

The ſteep grounds or Peterſand & Born-riffe, are very ſteepe on the off ſide, cloſe by them it is 12 or 13 fathom deepe.

Ameland men may ſee in twelve fathom, the depth of 13 & 14 fathom runneth farr of to ſeawards, ſo that men cannot ſee it in 15 fathom.

Courſes and Diſtances,

Peter-ſand, or the ſteep grounds and Born-riffe, lye north-eaſt & by eaſt, and ſouthweſt and by weſt foure leagues aſunder.

From the Flye to the northeaſt end of the Broad-fourteens, the courſe is weſt northweſt 8 leag.

From the Flye to Tinmouth or Newcaſtle, weſt northweſt 90 leag.

From the Flye to Hitland, the courſe is n. weſt, and by north, ſomewhat northerly 152 leag.

From the Flye to Fairehill; northweſt & by north about 144 leag.

From the Flye to Scuytenes, the courſe is north and by weſt, ſomewhat northerly 106 leag.

From the Flye to the Naes, north & by eaſt about 85 leag.

From the Flye unto the Riffe in 16 fathom north & by eaſt 63 or 64 leagues.

From Flye to Boevenberghen, the courſe is northnortheaſt or a little more eaſterly about 69 leag.

From the Flye to Rinkopper, or Numer-deep, northnortheaſt, or a little more eaſterly about 58 leag.

From the Flye to the Iland Silt, on the coaſt of Iutland, the courſe is northeaſt 46 leag.

From Born-riffe to the Naes, the courſe is north, or a little more eaſterly 82 leag.

From Born-riffe to Holy Land, northeaſt and by eaſt 33 leagues.

From Born-riffe to Wrangher-oogh, Eaſt-north-eaſt 92 leagues.

From Born-riffe to the Weſter-Eems 14 leag.

How theſe Lands doe ſhew themſelves at ſea.

Thus ſheweth Flyeland when you are two leagues thwart off from it.

Thus ſheweth the Schelling when you ſaile alongſt by it about two leagues from the Land.

Ameland ſheweth it ſelfe thus, when you are two leagues thwart off from it.

The ſecond Demonſtration,

Where in

The ſhewed the Scholbalgh, Lauwers, both the Eemſes, the VVeſer, the Elve, & the Eyder, and other channels of the Sea betweene them.

Schiermonck-oogh.

SChiermonck-oogh lyeth from the eaſt-end of Ameland eaſt ſomewhat northerly 3 leagues, it is a little low plaine Iland, about 2 leagues long, there ſtandeth no ſpeciall thing upon it to be knowne, but upon the Weſt end two capes, with a white ſandhill, otherwiſe it is all with lowe blackiſh ſand-hils, or hommocks, (but higher then upon the eaſt end) & mingled with white: the eaſt end is a long flat ſtrand, with little low rough ſandhills. When you bring the two capes upon the weſt end one in the other, and runne ſo in, you ſhall finde the outermoſt buye, which lyeth without the channell, at ſea, in 7 fathom, or thereabouts. Sometimes there lye two and ſometimes three buyes in the channell, which you muſt leave on the ſtarboard-ſide, and runne alongſt to the eaſtwards of them, being come within the channell, you ſhall find alſo beacons on the w. ſhore, which you muſt follow all along, untill you com to Oſtmerhorn, where you may anckor. The lying in, and depths of that channell do alter and ſhift oftentimes, and ſometimes much within a ſhort time, ſo that there is no certaintie to be written of it, whereunto men might truſt.

Rottum.

Foure leagues to the eaſtwards of Schiermonckoogh, lyeth the Iland Rottum, and betwixt them the little Iland the Boſch. A few yeares paſt through, ſetting of ſpyrie graſſe or heath, there was grown two or three handſome ſandhils, but are now againe altogether blowne away, and altered into a plaine flat ſtrande, which the ſea at high flouds doth altogether runne over.

Betwixt theſe Ilands the Boſch & Schiermonckoogh was wonte a channell to go in of indifferent depth, called the Lawers, which is now moſt caſt to, by the foreſaid ſtrand of the Boſch, which is grown in all alongſt unto the oogh, ſo that there is no more remaining, then a narrow & ſhowld creek.

To the eaſtwards of the Boſch goeth in the Schille, alſo an altering & uncertain channell, which is ſometimes deepe, & ſometimes againe ſhowld, and the channell ſhifteth too and againe, ſo that there is no certaintie to be written of it, whereunto men might truſt.

The VVeſter and Eaſter Eemſes.

The Iland Rottum is a little Iland, about a league & half long, and very good to be knowne, the weſt end is high and ſteep, the reſt is low land with ſome little ſandhills. Upon the eaſt end ſtand two capes, the greateſt or the runner ſtandeth upon the eaſt end upon the flat ſtrand, the ſmalleſt on the ſouth ſide of the ſandhill. There ſtand alſo two houſes upon it, the one upon the weſt end, the other in the middſt of the Iland in a valley.

Borckum. Borckum is alſo an Iland good to be knowne, two great leagues long, it ariſeth commonly, (when you come in out of the ſea) in three parts, as if it were three Ilands, when you come from the weſtwards, it ſheweth it ſelf in foure parts, for with high flouds the water runneth through in 3 places. The Wor. Counſell of Embden hath cauſed to be ſet upon the weſt end a high thick ſteeple, which men may ſee far off at ſea, on the weſt ſide of that ſteeple ſtandeth a little low church.

From the weſt end of Borckum ſhooteth off a riffe, a great wayes into ſea, called Burckum riffe: To the ſouthwards of it, to wit, betwixt Burckum & Rottum, goeth in the weſter-

Eems,

rckum.

Pascaerte vande Wester en Oosster Eemsen, De Weser, Elve, De Eyder met de ander Seegaten tusschen Amelandt ên de Eyder.

TOT AMSTERDAM,
Bij Iacob Aertsz. Colom.

Duytsche mylen 15. in een graedt. Lieues d'Allemaigne 15 en un degre
Engelsche en Fransche mylen 20. in een graedt Lieues Anglet Franc. 20 en un deg
Spaensche mylen 17½. in een graedt. Lieues d'Espaigne 17½ en un degre

Namen sommigher plaetsen op de Elve geteeckent met letteren.

a De Schorton
b Coolton
c Witte ton op de nieuwe gronden
d Hoeckton
e Roston
f Witte ton op de Steert van Romaerder plact
g h De Tonnen op Pelgroms Sandt

Op de Eyder.

k De uyterste Eyder ton
l Ton op de Hondt
m Baken op de Hondt
n Yseren Hendrick
o o o Bakens op den Yseren Hendrick
p De pypina de Elve
q Hoedemer Sandt
r Eylandeken Bulhoofden
s Baken op de Hulck

Op de Iaa en Weser.

a De Steenbalgh
b Bakens van 't Wadt
c Aenten of Ieppe plact
d De Iaa ton
e Ton op 't Noort
f Ton op 't Oosts
g Mellom tonne
h Ton op Bollensul
i Bakens op Bollensul
k Eerste ton op t Vlack
l Met Vlack
m Cappelmans Sandt

Namen sommigher plaetsen op beyde de Eemsen met letters aengheteeckent.

a Geltsaex plact
b De nieuwe Steert
c De Wolden
d Borkummer balgh
e De Ransel
f Steven Iansens ton
h Brouwers plact
i Memer Sandt
k 't Bake op de hoge Horn
l Memer balgh
m Ton op Connix plact
n Ton op Hamborgher Sandt

Namen sommig... plaetsen op de S... balch, Lauwers ... Schille.

a 't Hooge Sandt
b De Peerdemarck
c De Knockebalgh
d Sijmons Sandt
e Bosßandt
f Sanden van R... die na den Bo... strecken

VR
LAND T.
Blixum
Buiten Wallingsdiegerlant
Lange woerden
't Veer
Vyerzijl
Moeckzijl
Fonkezijl
Garmezijl
Warlummerzijl
Wadt
Iarmarschiel
Keyserdiep
Opt
Eyderzijl
Ossebalch
Keyserrode
De Yarrel
Iaa ofte Weser
Weser
De Weser
Middelplact
KEY
DINGER
LAND T.
Wedwaert
Swarte gronden
Balkenst
De hoge wegh
Ilsselwaerde
Groin
Oldenbroeck
Ritsenbuttel
Roshaken
Teutel
Witte gronden
Zuyder Brechalgh ofte Wester Tal
Noorder Brechalgh ofte Oester Tal
Ion int Ros
Nieuwe Werck
Kinderbalgh
Nieuwe Werck gronden
Scherhorn
Zuyder
Roomaerder sandt
Vogel sandt
Nieuwe gronden
Noorder Elf
Vlacte of Steert van Vogelsandt
Noorder Elf
Noorder gronden
Vlacte vande Noorder gronden
HOLSATIA
Hilbery
Zuyder Pyp
Noorder Pyp
Busen
Blaeuort
Steert of Vlacte van Blau ort
Oldenwerden
De Hour
Ditmarschen.
Nieuwe gronden
Breede rug
De Eyder
Oude Landtdiep
Schalpersul
Billwerder
Ietzingen
St Peter
Gardingen
EYDERSTEDT
Katting
Tonningen
Heyligh Landt

Groeningerlandt.
Oosterniclant
Emden
Pilzum
Pilzumner Wadt
Hamburger Sandt
Norden
Borkum
Rottum
Schiermonnikoog
Ameland
Delfzijl
Dollart
Watlbraken
Bandt
Juyst
Buysum
Nordtdiep
Wichter
Wisterbroeck
OOST
IES

Eems, which is the verie beſt channel that lyeth in all this coaſt.

For to fail into the weſter Eems, you muſt bring the capes upon Rottum one in the other. which ſhall thē ſtand about from you about eaſtſoutheaſt, ſail in out of the ſea right with them, & ſo you ſhall finde the outermoſt buye in ſix fathom at low Water.

Or els, if you com from the weſtward, running along the ſhore in 7 fathom, then you ſhall run alſo in ſight of the forſaid buy, being come to the firſt buy, then the ſteeple of Burckum ſhall ſtand e. from you, and the weſt end of Rottum about ſ.e. and by ſ. Towards the land from the ſecond buye, lyeth a plate, called Geltſacks-plate, which lyeth all along the reach, unto the fourth buye, where upon is no more then 14 or 15 foot depth at low water.

From the firſt buye to the ſecond, third, and fourth, the courſe is all alongſt eaſt. The ſecond buye lyeth in five fathom, the third in foure fathom & a half, that is, upon the ſhowldeſt of the weſter Eems: The fourth buye lyeth alſo in foure fathom and a halfe: upon the point of the foreſayd plate. All theſe buyes you muſt leave, lying on the ſtarboard ſide, when you ſaile in.

Comming from the weſtwards, thwart of the Lawers or Boſſand, then keepe the ſounding of the ſhore in five fathom, untill you be paſt it, ſail then boldly on eaſt, and then you ſhall runn throug within Geltſacks-plate, in three fathom & an half, & ſo com by the fifth buye into the deepe of the Weſter-Eems, then keepe ſtill the ſounding of the ſouth ſhore. The Herrinckbancks which were wont to lye off to ſeawards, at the weſt end of Rottum, are quite & cleane gone away, ſo that it is wide & broad betwixt Rottum and the foreſaid plate.

The Riffe of Borckum is on the off-ſide and upon the end flat, when the capes upon Rottum ſtand ſoutheaſt from you, then you may ſaile alongſt over the Riffe, right unto the fourth buye, and ſo you ſhall finde upon the taile of the Riffe at low water not leſſe then 16 foot water, for it is flat and broad. On the innerſide it is very ſteep and needle too, there ſhooteth off alſo from the inner-ſide a taile of ſand, which men might ſaile within at unawares, in ſailing up, you may not com nearer tot it then 7 fathom, all alongſt, untill you com to Borckum.

The fifth buye lyeth in the middeſt of the fareway in 8 fathom, with an ebbe & ſoutherly winde you muſt go on at leaſt ſoutheaſt, or els you ſhould lightly com a ground ou Borkum-riffe, or within the afore ſaid taile, which ſhooteth off from Borckum-riffe.

From the fifth buy to the ſixt, ſevent, & eight, the courſe is all alongſt eaſt & by ſouth. The ſixt buye, as alſo the ſeventh lye in the middſt of the fareway in eight fathom, the eight in five fathom upon the poynt of Huyberts plate, which of ſome is called the Haecks, that is, a taile which ſhooteth off from the ſouth ſhore. You may borrouw by the lead of Rottum, or the ſouth ſhore, & not do amiſs, but you might ſaile upon this taile of Huyberts plate in 5 fathom at low water, but keeping in ſix fathom, you ſhall runne clear without it.

Huyberts plate.

Being at the buye upon Huyberts-plate, then Borckum-ſteeple ſtandeth about northnortheaſt from you, & thwart of it in the fareway it is 12 fathom deepe.

Stephen Iohnſons buye.

From the buye upon Huyberts-plate, unto Steven Iohnſons buye, the courſe is ſoutheaſt, which lieth betwixt Balg-beacon and the Ruytbeacon, in ſeven fathom and a halfe. The Eemſe betwixt theſe two buyes is ten and twelve fathom deep. Comming paſt the buye upon Huyberts-plate, you muſt edge ſomewhat off from Borckum, for to avoyd the Mieuwes taile, which ſhooteth off from the Wolden or the ſouth end of Worckum, which you might ſail foule upon, in 5 fathom, when you are bound inwards.

Mieuwes-taile.

Weſtwards from Stephen Iohnſons buye ſtandeth that Wadtbeacon, right to the ſouthwards of it goeth in the Wadt. On the other ſide over againſt the foreſaid buye lyeth the Ranſel, that is a taile which ſhooteth off from the north ſhore, which men might ſaile within, in five fathom, when they ſayle upwards. The markes of this Reach, & for to avoyd the Ranſellare theſe: Upon the ſouth end of Borckum lye two little ſandhills, called the Wolden, keepe the ſteeple of Worckum to the weſt ſide of theſe ſand hills, or to the weſtwards of them, & then you ſhall go cleare of the Ranſel. In that reach it is nine and eight fathom deepe.

From Stephen Iohnſons buye to Dockbuye, the courſe is eaſtſoutheaſt, betwixt theſe two buyes ſtandeth a beacon on the ſouth ſhore, called the Ruytebeacon, by this buy the Eems is in the farewaye about ſeven fathom deep, this buye lyeth on the ſouth ſhore, in five fathom, upon a taile, which men might unawares ſail within ſaling up; the floud falleth very ſtrong behind this buye into Dockegat, wherof men muſt be very carefull. The markes of Dockbuye are, when that cloiſter of the Dam (being a flat church) commeth to weſtwards of Oldcloiſter, ſo as one may even ſee through betwixt them, then you have the length of this buye, and then theſe markes ſtand about ſouth from you. From Dockbuye to the laſt buye, the courſe is alongſt e.ſ.e. being paſt that, you ſhal eſpie the beacons on the weſt ſhore ſail alongſt about by them. That reach from Eemſhorn to Delfzile lyeth by little & litle up more ſoutherly unto Wadem. The marks of Eemſhorn, are, a mill in Embderland about eaſt and by north from you, and a high houſe to the northwards of the church: when the mill commeth to ſtand betwixt that houſe & the church, then you have the length of Eemſhorne: About Eemſhorne ſtand 3 or 4 beacons, which leade you even unto Groningerland. Being come paſt Dockbuy, then you may ſound along by the weſt ſhore untill you come to Oterdom, in 5, 6, & 7 fathom, come alſo no neare to it, for it is very ſteep: the eaſt ſhore, in ſailing up, you might ſaile within it in 6 fathom, behinde a plate, called the Hondt, being a hard ſand, and futher in lyeth yet another plate, called the Pape, alſo a hard ſand, and are faſt one to the other, but the weſt ſhore is ſoft & clay ground, untill you com to Oterdom, you muſt keepe all alongſt the weſt ſhore, and follow the beacons. which ſtand there along the ſide.

This reach lyeth in firſt ſouthſouthweſt, and ſouth & by weſt, and ſo about ſ.ſ.e. in a bight, and ſ.e. alongſt by Groeningerland.

Reyder.

For to avoyd Reyderſand or Jannens ſand (that is a plate in the middeſt of the Eems, betwixt Oterdom and Reyde, where upon at low water it is ten foote, you muſt looke out for Oterdom a flat church, without ſteeple, ſtanding in Groningerland on the dyke, when you come thwart of it, edge over to Embderland, to wit, to the Knock, which is a ſteeple broken of, ſtanding in the water upon the point. Coming by the Knock, then runne within two cables length along by the north ſhore unto Loegerhorn, and then you ſhall not fail to near the plate. There ſtandeth a flat ſteeple betwixt the Knock & Loegerhorne, called Gerritſwaert, when you can ſe through that ſteeple, or when that ſteeple & the church come one to the other, then are you thwart of that foreſaid plate.

When you ſail up the Weſter Eems, you muſt leave al the buyes on the ſtarboard ſide.

A ſ.e. & n. w. moon maketh without the Eems the higheſt water. In the Balgh a ſ.ſ.e. and n.n.w. moone: Before the towne of Embden, a ſouth, or ſouth & by weſt, and a north or north and by eaſt moone.

Iland Iuyſt.

The Iland Iuyſt lyeth a great league, or a league & a half e. n. e. from Borckum, which is a little lou Iland, the Weſt end is a high ſteep point & gray land, the Eaſt end is higher then the middeſt. The church ſtandeth in the midſt upon the land, the ſteeple is ſomwhat ſharpe, and ſtandeth at the eaſt end of the church, one cannot ſee the church, but thwart of a low place or valley. Betwixt Borckum & Iuyſt goethin the Eeſter Eems. From the weſt end of Iuyſt lyeth off a riffe two leagues, or 2 leagues & a half weſt into ſea, on the off-ſide you may ſound it in 3 or 4 fathom, to the ſouthwards of it goeth in the Eaſter Eems.

Eaſter Eems.

For to ſaile into the Eaſter Eems, then bring the church upon Borckum ſouth from you. If it be then claere ſight, you ſhall be able to ſee through the ſteeple, ſaile then right in with it, and you ſhall finde the outermoſt buye in four fathom,

thom, or foure fathom and a half at low water.

From the outermoſt buye to the ſecond, the courſe is eaſt & by ſouth. The end of Iuyſt-riffe (betwixt the two buyes is on the innerſide ſo exceeding ſteep, that you cānot ſound it, but further in from the ſecond buye it is flatter, & there you may well ſound it. The ſecond buye lyeth in three fathom at low water, upon the point of a long narrow bank or hoeck, which ſhooteth of from the eaſt end of Borckum which men might unawares ſaile within, called Brewers-plate, which taile is on the north ſide very ſteep. Betwixt the firſt & 2 buye it is 4 fathom deep, at low water thwart of the 2 buye it is ahaine deeper, to wit, 8 and 9 fathom.

From the ſecond buye, the Eaſter Eems, lyeth in further eaſt & by ſouth, & e. ſ. e. and by little & little more ſouther-ly, but with a ſloud you muſt goe on from the ſecond buye at leaſt eaſt, & eaſt & by north, that you may not be carried within the foreſaid point of Brewers-plate. Iuyſt-riffe is further in, of from the ſecond buye flat, ſo that you may ſoud it in 5 or 6 fathom, & come not alſo nearer to it, leaſt you ſail within Memer-ſand, that is a taile, which ſhooteth of from the foot-ſtrand, within Iuyſt from Memers-ſand. Memer-ſand. As ſoon as you get again deeper water, then runne firſt e. ſ. e. and afterwards on ſ. eaſt, unto the beakon upon the High Horne that ſtandeth upon the drye ſand, on the ſtarboard-ſide, edge up to the ſouthwards or the weſtwards, behinde the beacon, there is the road in 5, 6, or 7 fathom, and good riding fot a ſoutherly wind.

The Eaſter Eems is thwart of it wide and broad, the eaſt end of Borckum is thwart of it wide & broad, the eaſt end of Borckum is flat, that you muſt not ſpare the lead, when you ſaile out or in there, with a ſhipp of great draught.

About ſoutheaſt and ſoutheaſt & by eaſt from the afore-ſaid beacon lyeth the buye upon Kings-plate, being a tayl which ſhooteth off from the ſouth ſhoare, this buye with the aforeſaid beacou you leave lying on the ſtarboard ſide, Buye upon the Kings plate. there betwixt them both is a good road on the ſouth ſhore. At Nordeu in Eaſtfrieſland ſtand two ſteeples, cloſe one by the other, whereof the one is flat & thick, & the other long & ſmall, when theſe ſteeples com a ſhips length to the eaſt-wards of the eaſtermoſt ſide of the Bant (being a little Iland lying upon the Wat) thē you have the buy upon Kingsplate that are good longſt marks: And when the ſteeple of Iuyſt commeth to be northnortheaſt from you, that are good thwart marks of the ſame buye.

From the buye upon Kings-plate unto the buye upon Hambourgh-ſand, the courſe is ſ. e. and ſoutheaſt & by eaſt Hamburg land. which lyeth in three fathom, this is Pilots water for great ſhips. You may runne from thence through a creeke, and come out againſt the ſouthermoſt buye upon the Weſter-Eems.

For to ſail through this creeke, you muſt leave the buye upon Hambourghſand on the larboard-ſide, and ſaile along by the beacons, leaving on the ſtarboard-ſide, at both the ens of this creeke it is three fathom deep, and in the midſt five, ſix, & ſeven fathom, and lyeth about ſ. ſ. w. through, all alongſt into the Weſter Eems.

About a half league within Iuyſt, betwixt the beacon upon the High Horne, and the buye upon Kings-plate, on the eaſt ſide of the Eaſter Eems lyeth Memerbalgh. It lyeth in Memer-balgh. moſt nort, that is a good road for ſmall ſhipps, that are bound to the weſtwards, or out into ſea. Within the balgh he that runneth in by the HighHorne ſhall finde good road for ſmall ſhips, that are bound to the eaſtwards, which lyeth in ſouth.

Comming from the eaſtwards, you may ſound Iuyſt riff, which is flat on the off ſide, without, in the point of the riffe is a ſhare or Deadbalgh, with two points, betwixt them it is 3 fathom and an half deepe.

A ſ. ſ. e. & a n. n. w. moone maketh (without in the Eaſter Eems) the higheſt water.

Buys. To the eaſt of Juyſt lyeth Buys, the ſhorteſt and ſmalleſt Iland that is upon all this coaſt. It riſeth up in two Hom-mocks, whereof the Hommock, which is the moſt eaſter-lyeſt is the higheſt and ſharpeſt.

Buyſdeep Betwixt Iuyſt & Buys goeth in the Buyſdeepe: the Wor. Counſell of Embden was wont to ſet it with buyes, but it is donne no more, in regard it doth ſo oftentimes ſhift.

Two great leagues to the eaſtwards of Juyſt lyeth Nor- No derney, betwixt them both lyeth that litle Iland Buys. Nor-derney is to be known by a broad flat towr, which ſtandeth upon the weſt end, but ſometimes men can hardly perceive it. About the midſt of the Iland, neareſt the eaſt end lyeth a high white ſandhill, thereby it is beſt to be knowne. Fur-ther the land is all full of Hommocks. Betwixt Norderney and Buys goeth in a channell, called the Norder-deepe, or Norderney.

A great league to the eaſtwards of Nordernye lyeth the Iland Baltrum, which is about two leagues long, a litle ſhor- Balt ter then Nordernye. Upon this Iland ſtandeth no ſpeciall thing, whereby men may know it: but upon the eaſt end a high ſandhil, which is ſharp above, the weſt end is low ſand-hilles. When the foreſaid high ſandhill is ſoutheaſt and by eaſt from you then it is round to ſee to: Upon the Weſt end there goeth a ſwamp through.

Betwixt Baltrum and Norderney runneth in a channell, called the Wichterie, there is no certainty to be written of wich it, that men maytruſt to, ſomtimes there is two fathom wa-ter, and more, and ſometimes no more then foure orfive foote.

The Iland Langeroogh lyeth a league to the eaſtwards of Baltrum, which is foure great leagues long, and hath on the off-ſide a faire ſtrand, & three or four ſandhilles, where by men may know it, which lye from about the middeſt of the Iland unto the weſt end, a good wayes one from the other, the tops of them are plaine and flat. Betwixt Langer-oogh and Baltrum goeth in the Acumy, wherein lye two Acum buyes. It is no channell for great ſhipps, it lyeth out alongſt by the foote ſtrand of Langeroogh, firſt northeaſt, & then ſome what more eaſterly, but it is not to be truſted to, be-cauſe it altereth and ſhifteth very often.

Betwixt Langeroogh & Wrangeroogh lyeth the Iland Spyckeroogh, which is about a league long. At the eaſt Spyk oogh end there was wont to lye a litle Iland, good to be known, called Luttick Spykeroogh, which is now altogether gone. Upon Spykeroogh ſtandeth nothing, whereby men might know it, but it is a black land, with Hommocks & Nobbes, like to the other Ilands: betwixt Spyckeroogh & Langer-oogh goeth in the Oxebalgh. Oxeba

Wrangeroogh lyeth two great leagues to the eaſtwards wran of Langeroogh, which is a great league long, being a little oogh plaine white Iland: Upon the eaſt end lye high broad white ſand-hilles: Upon the weſt ende the Earle of Oldenbourgh hath cauſed to be made a great thick towre, with 2 ſpires: when they ſtand on right in the other, then you are by the outer buy of the Weſer; the aforeſaid towre, men may ſee two kennings off at ſea. Betwixt Wrangeroogh & Spyker-oogh goeth in the Harrel, about ſouthſoutheaſt, but is it not The H to be truſted to, becauſe it ſhifteth very often. rell.

The Acumy and Harrell are ſet both with buyes by the Wor. Counſell of Embden: Theſe channell ſerve not but for ſmall ſhips, like as all the other, lying betwixt the Eaſter Eems and the Weſer.

The Land leyth from Bornriffe to Wrangeroogh eaſt-northeaſt and weſtſouthweſt 28, or os ſome will have it 32 leagues.

For to ſail inro the Iade or Weſter Weſer with a ſouther-ly winde, runne to the ſtrand of Wrangeroogh in foure fa-thom, with a weſterly winde runne no further then five fa-thom, and leadit in ſo by the ſtrand of Wrangeroogh, in 4 or 5 fathom, untill you come a good wayes within, or to the end of foote ſtrand of Wrangeroogh, there you ſhall finde the firſt buye in five fathom at low Water: Menfer-churgh ſhall then ſtand ſouth from you. Thwart of this firſt buye the redde ſand is very ſteepe, which you muſt leave on the larboard ſide, and the buye on the ſtarboard ſide, when you come in. Thwart of this firſt buye commeth a tayle, ſhooting off from the ſouth ſhoare, that is the inner-moſt point of the Stonebalgh, which men might at una-wares fall within, in three fathom and an halfe, or foure fa-thom, the firſt buye is laid upon the point of this tayle. The

Stone-

Stonebalgh goeth in to the eaſtwards of Wrangheroogh the ſouth ſide where of is ſteep, but the north ſide flat, which men may ſound. In this Balgh it is ten foot deepe at low water. From the firſt buye to the ſecond, and alongſt to the third, the courſe is eaſt, the ſecond buye lyeth in two fathom and an half: The third, that is the Iade Buye, lyeth in three fathom, upon the ſhowldeſt of the High-waye. It is very uneven betwixt the firſt and the third buye, you ſhall get wiſe depth of five or ſix fathom & then again 2 fathom or 2 fathom & an half.

For to ſaile from the Iade to the Weſer, then ſaile by the third buye over the ſhowldeſt of the High way on eaſt north eaſt to the Mellembuye, and you ſhall finde at low water upon the foreſaid ſhowldeſt place, or by the third buye, no more water then nine or tenne foote, and being over there you ſhall get againe deeper water, and then you are in the Weſer: Reckon well your tydes, for the ebbe falleth very ſtrong northnorthweſt out at the Iade, and the flout to the contrarie, very hard inwards, ſo that you can hardly ſtemme the tyde, when the weather is ſomewhat calme, whereof you muſt be very carefull,

For to ſaile up into the Iade, leave the foreſaid third buye on the laboard ſide, and go from thence moſt ſouth up, unto the poynt of the Dyke, called Hormmerſcheel, whē you are come by the Dyke, there the Iade is wide and broade, without the foreſayd Dyke ſtandeth a beacon or two, for ſhipps that are bound over the Wadt: If you will ſaile further up into the Iade, then keep the weſt ſhoare, untill you come thwart of the church without a ſteeple, which ſtandeth by the Dyke, there you muſt leave the weſt ſhore, becauſe of the Aenten or Jeppe plate, which ſhooteth off from the Veer, alongſt the weſt ſhore, and ſometimes lyeth drye at low Water. The weſt ſhoare lyeth moſt ſoutheaſt ſomwhat ſoutherly.

A ſouth and north moon maketh the higheſt water upon the Iade, and it floweth with an ordinary tyde 2 fathom and an half up & downe.

The VVeſer.

For to ſaile up the Weſer, come no nearer Wrangeroogh then ſeven fathom, being in ſeven fathom, then edge off from the ſhore into 11 fathom, and you ſhall there finde the firſt buye at the comming into the Weſer, lying in ſeven fathom upon the taile of the Red-ſand, Menſer church (that is a flat church without a ſteeple in Vroukens land) is then ſouthſoutheaſt from you. Being thwart of the firſt buye, and that the weſt end of Wrangheroogh is ſouthſouthweſt from you, then you runne over the taile of the Red ſand in 5 fathom.

From the outermoſt buye to the ſecond, third, fourth, & fift, the courſe is due eaſt, which lye all in ſeven fathom, the ſouth ſide (to wit the Red-ſand) neareſt each a point different from menſer church, ſo that Menſer church lyeth from the ſecond ſouth and by eaſt, from the third ſouth, from the fourth ſouth & by weſt, and from the fifth ſouthſouthweſt. The fift buye is called the buy upon the Head, for to know that from all the other buyes, there ſtandeth a ſtaffe upon it of a halfe fathom long. with a white knotte upon it. Over againſt the buye upon the Head lyeth a white buye on the white grounds. Betwixt all the foreſaid buyes you muſt reckon wel your tydes, the floud commeth out of the north weſt, and falleth alongſt over the Redde-ſand, and the ebbe to the contrary. The right deep thwart of theſe foreſaid buyes, in the comming in is eleven fathom, but thwart of the buye upon the Head. 5 fathom at low water.

Right before the Weſer lyeth the Middle-plate, the Eaſtermoſt or the Innerſide beginneth right to the northward of the buye upon the Head by the white grounds, and lyeth alongſt the reach unto the third buye, to reckon from without, and is on both ſides flat for to ſounde about. On the weſt ſide of the foreſaid plate lyeth a white buy about from Menſer church, which you muſt leave in coming in on the larboard-ſide.

For to ſail from the buye upon the Head, out again to the eaſtwards of this plate unto the Elve. then ſound it out about the white grounds, in 4 or 5 fathom, untill you be out in the ſea.

For to ſaile further up into the Weſer, the courſe from the buye upon the Head unto the ſixth buye s ſ. e. & n. w. Menſer Church ſhall then lie from you ſouthweſt and by ſouth, the Weſer is thwart of it about 20 fathom deep. From the fixth buye to the ſeventh, thath is, the buye upon the Cours, or the Wapperbuye, or the ſouthweſt buye, becauſe Menſer church lyeth ſouthweſt off from it, the courſe is ſoutheaſt. The Iade buye lyeth about ſouth, or ſouth and by weſt from this buye. From the buye upon the Cours unto the Mellen buye the courſe is yet ſoutheaſt, which you might ſail within at unawares is ſixe fathom. Menſer church lyeth off from it ſouthweſt & by weſt. From the Mellem buye to the buye upon Bollenzile the courſe is ſ. e. ſomewhat eaſterlie, you muſt reckon your tides there verie well, becauſe the floude falleth exceding hard in to the weſt ſhore. Langworder church lyeth right ſouth & by eaſt from that buye upon Bollenzile, over againſt it upon the point of the black grounds lyeth a white buye, come no nearer to it at half floud then 4 fathome and an half, you might unawares ſail within that point (in ſayling in) in 4 fathom. From the buye, upon Bollenzile to the beakon upon Bollenzile the courſe is ſ. ſ. e. or ſoutheaſt & by ſouth. Langworder church lyeth about ſouth from that beakon, you muſt leave it on the ſtarbord ſide comming in within that beakon upon Bollenzile is a good rode for a weſterly winde. From the beakons upon Bollenzile to the firſt buye upon the flat, the courſe is ſ. e. til you come ſomewhat beneath the beakon, & thē alongſt e. ſ. e. The marks of the firſt buye upon the Flat is, when you can ſee through the belhoals of Longworder ſteeple, then you are thwart of the firſt buye, Langworden church is then frō you ſomewhat more ſoutherly then ſ. ſ. w. From the firſt buye upon the Flat to the ſecond, the courſe is e. ſ. e. Betwixt theſe two buyes ſtande five beakons on the larboard ſide, upon the black grounds. From the ſecond buye upon the flatte to the Meyland the courſe is ſoutheaſt and by ſouth, Being come thwart of wadnis or the Meyland, ſail then cloſe along by the green ſhore, untill you come within Blixem, there is the rode for great ſhips that are bound to ſea.

Buye upon Bollenzile.

Like as upon the Iade, ſo alſo upon the Weſer a ſouth & north moon maketh the higheſt water, it floweth there alſo 2 fathom & a half up and downe.

South grounds.

To the eaſtwards of the Weſer lye the ſouth grounds of the Elve, there go in 2 faire deep Balghs or Creeks of 10, 12, & 13 fathom. the Til, called alſo Broadbalgh, is the weſtermoſt, & lyeth ſo far to the weſtwards, that men can but even ſee the New worke from thence.

If it ſhould happen that comming to the eaſtwards of the weſer, you ſhould be beſet upon the ſouther grounds, being a left ſhore, & be in danger, then ſaile to the ſouth grounds in 4, 5, & 6 fathom, but not much nearer alſo, for they are ſomewhat ſteepe, When you (running ſo along by theſe grounds upon the ſame courſe) ſhall get 8, 9, yea 10 or 12 fathom ſoft ground, then that is certainly of the Broadbalgh or Weſter Till, take then the ſounding of which ſide that you will, & ſound it about by the grounds in 4 or 5 fathom, and you ſhall find amongſt the ſands ſmooth water, & good rode, and may lye ſheltered for all winds. The weſter Till lyeth in firſt e. ſ. e. alongſt by the north ſhore it is deepeſt, on the ſ. ſhore you cannot ſail within, any tailes, in ſailing out, but you may in ſailing in: when you come ſomwhat further in, lyeth up more to the ſouthwards: there are divers Balgs or channells, where men may ſaile through that are acquainted.

Eaſter Til.

The Eaſter Till or Broadbalgh lyeth betwixt the Weſter Til & the Hondtbalgh, which runneth in 7 fathom into the eaſtermoſt point, (or the old Scorhorne) that is a taile which lyeth off a good wayes, and which you might at unawares ſail within in 7 fathom comming from the weſtward. This Till lyeth in alſo (like as the other) firſt eaſt ſoutheaſt, but a little further in more eaſterly. Here alſo you may take the ſounding of which ſide or ſhoare that you will.

weſter Til.

Being com within, you ſhall get ſmoot water off the ſands for all winds. In this channell is not leſſe then 7 fathom water.

Hondt-balgh. The Houndtbalgh lyeth right into the weſtwardes of the Steep-buye or Schorhorn. If you will goe in there with ſmall ſhipps for to ſaile over the Wadt into the Weſer, then goe (when you have the Steepe-buye) in ſouthſoutheaſt. The Hondtbalgh is without indifferend wide, keepe that courſe, untill you come thwart of the beakons, which you muſt leave on the ſtarboard ſide, you may well ſound in about the off-ſide of the Schor-horne, but not the weſt ſide, by it lye plates, which you might ſaile foule of in 9 fathom, in comming in, but on the Schor-horne you cannot doe amiſſe.

Holy land.

The Iland Holy land, and the outermoſt buye in the Weſer, lye one from the other, ſouth ſomewhat weſterly, and north ſomewat eaſterly. When it is cleare and good ſight, you may ſee Holy land, when you lye in the Weſer, by the buye upon the Head. Holy land and Born-riffe lye one from the other ſouthweſt and by weſt, and northeaſt & by eaſt, according to the common opinion, two and thirtie leagues, When you come from the weſtwards, and begin to get Holy land in ſight, it ſheweth it ſelfe with a high reddiſh ſteep point, which is flat above. For to anckor or make rode under Holy land, comming from the weſtwards, then runne to that land in tenne or twelve fathom. When you ſaile towards the ſouth point, and come ſomewhat near the land, you ſhall eſpie a rock, like unto a ſmall towre, cloſe by the high land, called the Monck, which is almoſt ſo high as the high land. About ſouthſoutheaſt an Engliſh mile, or a little more from that rock, lyeth a rock under water, If you keepe your ſelf in eight and nine fathom, then you run without this rocks, & cannot take any hurt of it: When the Monck is covered of the other land, then you are thwart of this ſuncken rock. When the foreſaid Monck commeth a handſpikes length, paſt or without the other land, there is the road; and good anckoring it ten or 11 fathom, the ground is there faire and cleane, except it de of wracks of loſt ſhipps, or loſt anckors, which are there many. Lying there in nine, tenne or eleven fathom, you have ſhelter for a weſtſouthweſt, northweſt and north windes. From the point where the Monck ſtandeth by, ſhooteth off a little riffe from the ſhoare, which men may ſound in three fathom, you may alſo runne in five fathom from the ſhoare, & ſaile cleare of the foreſaid ſuncken rock, to wit, through betwixt the ſuncken Rock, and the little riffe: but if you runne into deeper water, to wit, in ſeven fathom, you ſhall runne right upon the ſuncken Rock. In eight or nine fathom you doe runne about without the ſouncken Rock.

Monck.

Rock under water.

From the north ſide of Holy land lyeth off an evill Riffe, almoſt a league into ſea ſo that you cannot come no nearer the whole north ſide, then in nine or tenne fathom. If you will goe about to the northwards of Holy land, being come ſo farre that the eaſt end of Holy land come to be ſouth and ſouth & by eaſt from you, ſaile then freely unto the Scholvers point; that is a flatte point, which you may ſound in five, ſix, and ſeven fathom. If ſo be that you will runne in eight fathom off from it, you ſhall runne above two great leagues from the ſhoare. The right fareway betwixt the Hever and Holy land is not more then nine or tenne fathom deepe. When you come about the point to the rode, & that Scholvers point lye northeaſt, & the Rock ſouthweſt from you, there is good lying in 5 fathom.

Scholvers point.

South haven. Scholvers point is the point where the South Haven lyeth within, which lyeth from the high land about eaſt into ſea. From the outermoſt end of Scholvers point lyeth a banck of three fathom, unto the point where the Monck alſo ſtandeth, within it is very good lying for ſhipps of little draught, that is called the ſouth Haven of Holy land. A ſouthſouthweſt and northnortheaſt moone maketh there the higheſt water.

Of the Elve.

The Rode of Holy land, and the outermoſt buye of the Elve (called the Schortunne or the Steep-buye) lye right ſoutheaſt & by eaſt and northweſt & by weſt eight leagues a ſunder, which lyeth right to the northwards of the Schorhorn, that is the outermoſt point of the New-workes grounds, on the ſouth ſide of the Elve, the right deepe of the Elve runneth in alongſt to the northwardes of it. On the north ſide of the Elve lye the North ground, which lye ſomwhat flat far off to ſeawardes upon the northweſt ſide. The ſouth end of the North-grounds, called Voghelſand, runneth from the foreſayd buye a good wayes weſt and by north into ſea, with narrow taile of perfect harde ſand, about a halfe league broad, which waxeth by little and little, the farther from the ſhoare the deeper. Three leagues from the foreſaide buye, there is upon it eleven fathom water, when you ſaile on north from the Steep-buye, you runne over it in three fathom, or three fathom and a halfe, but it doth ſoone deepe againe in five, ſeven, eight & tenne fathom, ſoft ground, that is in the creeke of the North Elve. To the ſouthwerdes of that a foreſaid Voghelſand, in the right fareway of the Elve (for him that commeth from the weſtwardes) it is alſo ſomewhat ſoft ground, and fourteene and thirteene fathom deepe, to the ſouthwardes of it, towards the ſouther or Steepe grounds, the ground is againe very hard, and the grounds very ſteep, you may not come nearer them (eſpecialy by night or darke wether) then in eleven or twelve fathom, if you come nearer to them, you might ſaile foule of the weſter Till, or Souther-Broad-balgh, which runneth up to the ſouthwards into the grounds to nothing.

Mtile vogelſ.

North Elve.

Kinder-balgh.

When you come from the weſtwards, and ſaile to the Elve, you ſhall finde betwixt Holy land and the weſer, and thereabouts ſomwhat to the eaſtwards, depth of twenty fathom, untill that you come well halfe wayes to Holy land, toward the Steenbuye, then it doth begin to ſhowld from eighteen to ſixteen & fourteen fathom, cloſe by the Steep buye it is 12 fathom deep.

New-grounds.

If you come by night alongſt by the ſteepe or ſouther-grounds, with a ſoutherly winde in twelve or thirteene fathom, and goe on eaſt and by north, you ſhal at laſt meet with the ſholding of the New-workes-grounds, right to the northwards of the Hondt-balgh in eight and ſeven fathom, there you muſt then let fall your anckor, for to ſtay for the day, and you ſhall finde your ſelf not farre from the buye. With northerly windes you muſt anckor further from the ſouth ſhoar in the foreſaid ſhowlding in eleven or 12 fathom.

To the northwards of the foreſaid narrow taile, or ſhowlding, which lyeth off from Vogelſand, runneth in a great bight or Slenck into the norther grounds, called the Norther Elve, it is in the going in ſomewhat within, ſo broad that you may there in turne to windewardes, but within it runneth narrow and ſharp too; & at laſt to nothing, (ending allmoſt againſt the white buye, which lyeth upon the Elve, upon the taile of the New-grounde) it is going in more then halfe wayes thirteen and twelve fathome deepe, and ſoft ground, very much like the right Elve. It happeneth oftentimes by darke wether that the ſhippes (thinking that they are entred into the right Elve) runne in there, ſometimes which danger, eſpecially with weſt northweſt windes, for they muſt come out there back againe. When you ſail off from Holy land on eaſt ſoutheaſt, you ſhall have dept of twelve or thirteene fathom, being a league off from it, that you leeſe the white cliffe out of your ſight, then you ſhall get one eve dept of 13 fathom, and ſoft ground, all alongſt untill you come within the foreſaid north Elve. When you ſhall perceive that you are entret in there, you may) when the New-worke is more ſoutherly then ſoutheaſt and by ſouth from you (run alongſt over the taile of Vogelſand in 5 fathom, and ſo come againſt the Steep-buye upon the right Elve.

North Elve.

For

For to ſet ſayle by night from the road of Holyland, the courſe is ſoutheaſt and by eaſt, then you ſhall run over the foreſaid taile of Vogelſand in ſeven and eight fathom, and ſomewhat hard ſandy ground. If you then run a little more ſoutherly, you ſhall get againe twelve and thirteene fathom and ſomewhat ſoft ground, that is the right deep or channell of the Elve betwixt Vogelſand and the ſteep-grounds. If you runne then more ſoutherly, you ſhall get againe ſomewhat hard ground of the ſouther grounds, which are (as hath beene here before ſaid) very ſteep and hard, when you come neare them in twelve or eleven fathom, you muſt edge off againe from them unto twelve or thirteene fathom, and alongſt by them towards the ſteepe-buye, unto the foreſaid ſhowlding of the New-workes grounds, and there ſtay for the day light.

When you come by day from Holy-land or from the weſtwards, and that you get New-worke in ſight of you bring that and the Cape one in the other, and ſayle ſo right in with them, then you ſhall finde the ſteepe-buye, which lyeth (as hath beene already ſayd) towards the ſouth land on the ſide of the Schorhorne the outermoſt poynte of the New-grounds in ten or eleven fathom. From the Steep-buye to the Kool-buye, that is, the ſecond buye, the courſe is due eaſt, which lyeth in eight fathom. Upon the New-work ſtand three country mens houſes, the middlemoſt of them, and the ſteeple of the New-worke come one in the other when you come to the ſecond buye. The third buy lyeth in ſix fathom, from the Kool-buye eaſt and by north ſomewhat eaſterly, but neareſt eaſt and by north. The fourth lyeth in five fathom from the third, eaſt and by north. Betwixt theſe buyes a little within the third, runs a deepe Creeke eaſt-ſouth-eaſt into the New-workes-grounds, called the Kinder-balgh, which is wide at the entring in, and at halfe flood well nine fathom deepe, but runneth at length altogether drye to nothing. Hee that commeth running alongſt by the ſouth-grounds, might lightly get in there, therefore the third buye lyeth a little further off from the South ſhoare, becauſe men ſhould avoyd that Creeke. Betwixt the third and fourth buy on the north ſide of the deep lyeth a white buye in three fathom, upon the tayle of the New-ground, which men might ſaile within, when they come inwards, that you muſt leave on larboard ſide, and all the blacke buyes on the ſtarboard ſide.

Kinder-balgh.

New-grounds.

The foreſaid white buye and the New-worke lye north-northeaſt and ſouthſouthweſt one from the other, to the eaſtwards of it the north ſide is very ſteepe. The fift buye lyeth in 3. fathom and a halfe, or 4. fathom, and lyeth from the fourth due eaſt.

The ſixth buye, that is the poynt buy, lyeth in 6 fathom, from the fourth and fifth due eaſt. In the right deep to the northwards of theſe foreſaid black buyes from the Koolbuy to the point buye in the right fareway, it is all alongſt 6. and 7. fathom deep. From the poynt buye to the buye in the Roſſe, the courſe is ſoutheaſt, which lyeth in 7. or 8. fathom, when the Ros beakon commeth to the little ſteeple of Gron or Groen, then you are thwart of this buye. Halfe wayes betwixt the poynt buye, and the buye in the Roſſe, lyeth yet another buye on the ſouth ſide, which is there betwixt them both exceeding ſteepe and needle too. Right eaſt ſoutheaſt from the poynt buye over againſt the buye in the Roſſe, ſomewhat further inwards, lyeth a white buye upon the tayle of Romaerl plate, which men might at unawares ſayle within, in foure or five fathom when they ſaile upwards. When the little ſharpe ſteeple of Woord commeth to the weſtwards of Oldenbrock (that is a Church with two ſpires upon one ſteeple) then they are ſouth from you, from thence inwards you may ſound Romaerl plate in ſix fathom without danger, otherwiſe it is on the off-ſide very ſteepe. From the Rosbeakon to Brunsbuttell are five leagues, betwixt the buye in the Roſſe, and the buye upon Romaerl plate begins a ſand lying right in the middeſt alongſt the fareway about 2. leagues long, called Pilgroms-ſand, upon it is all alongſt no more then two fathom water, or a litle more, upon it lie three black buyes, and over againſt it on the north ſide, 2. white buyes, you muſt ſaile through betwixt them, alongſt to the northwards of that ſand, being paſt it, you ſhall come upon the flat. There lye yet two buyes which you muſt leave alſo on the ſtarboard ſide in ſayling up, before you come to Brunsbuttell. All the depths here before mentioned, are reckoned at halfe flood.

From Brunsbuttell to the buye upon Salſhorne, or Friburger-ſand, the courſe is eaſt, and eaſt and by north alongſt by the north-land. From Salts-horne to the buy againſt the Steur eaſt and by ſouth, and eaſtſoutheaſt, from the Steur to the buye upon Gringer-oorts-ſand ſoutheaſt, and ſoutheaſt and by eaſt, that lyeth againſt Bilenburg more then halfe wayes in the deepe. Betwixt this buye and the buye upon the Steur lyeth another buye in the fare-way. From the buye of Gringer-oort to the buye upon Stader-ſand ſoutheaſt and by ſouth, and ſouthſoutheaſt. This buye you muſt leave on the ſtarboard ſide. From Stader-ſand to Willems-fliet, or the buye upon the Luye it is ſoutheaſt, and ſoutheaſt and by ſouth, and from thence to the buye upon Terloo eaſtſoutheaſt. From thence to the buye upon Hanneball, the courſe is eaſt and weſt. From Hanneball to the buye upon Blancknes ſand eaſt and eaſt and by North, you muſt keepe that buye right with a great tree, and then runne alongſt by the north land untill you bee paſt the buye.

From Blanckneſſe ſand unto the buye in the bight; the courſe is eaſtſoutheaſt, and from thence unto the Eckhout eaſt and by north in the right channell it is there three or 4. fathom deepe, there lye the great ſhips for to lade and unlade.

The Eyder.

Six leagues to the northwards of the Elve lyeth the Eyder, with many ſhowlds lying farre out without the land, chiefely and moſt on the ſouth ſide, on the north ſide of the deepe alongſt by the land of Eyderſtee lieth a long ſand called the Broad-back, or New-grounds, on the ſouth ſide lye Blavoort, the Iron Hendrick, the Hound and Heckſand. To the ſouthwards of Blavoort, and the Iron Hendrick, about a league to the ſouthwards of the mouth of the Eyder, goeth yet a Deep in, called the North pipe, where men may ſaile in, and come out againe by the Hound upon the Eyder. In the Eyder lye on the ſouth ſide of the Deepe 7 black buyes, which you muſt leave all (in ſayling in) on the ſtarboard ſide, and on the north ſhoare, which you muſt leave on the larboard ſide. The outermoſt buye lyeth from the ſteepe buye right north, and from Holy-land eaſt or a little more northerly 7. or 8. leagues. When you fall with the land with that courſe you ſhall eſpy to the northwards of the Eyder, upon the land of Eyderſtee, a ſharpe ſteeple indifferent high, called Gardingen, bring that over or to the ſouth ſide of the little ſand-hils lying on the north ſide of the Eyder, called the Souther-Heads, they ſhall then ſtand from you northeaſt and by north, or a little more eaſterly, ſaile right in with them ſo, and you ſhall fall with the outermoſt buye, when that then the ſharpe ſteeple of Weſtinburen, ſtanding to the ſouthwards of the Eyder in the land of Ditmarſen commeth to be eaſt or a little more ſoutherly from you, then you have the length of the foreſaid buye, and then S. Peters Church upon the Eyderſtee to the weſtwards of Gardingen, not farre from the ſea ſide, ſhall ſtand from the northnortheaſt. Thus, or comming out of the ſouthweſt upon the foreſaid markes of Gardingen, and the Souther-heads, you ſhall run over the ſhowld of Blavoort, which men do call alſo the taile of the Hound, lying off from Blauoort almoſt halfe waies to Holyland. It is alſo by ſome called Blavoort. or comming from the northwards, bring the foreſaid ſteeple of Weſtinburen eaſt or a little more ſoutherly from you, and ſaile ſo right in, untill that Gardingen commeth to the foreſaid ſouther-heads, or that S. Peters Church bee n. n. e. from you, in doing ſo, you ſhall not miſſe alſo the outermoſt buye. From the outermoſt buye to the ſecond, third and fourth, it is all one courſe e. ſ. e. the ſecond lyeth upon the ſhowldeſt of the channell at low water in 16. foot,

the third in foure fathom, and the fourth in five fathom.

Theſe three laſt lye alongſt the North ſide of Blavoort, on the ſouth ſide of the deepe. In ſayling in, you muſt leave them all on the ſtarbord ſide, and runne alongſt to the northwards of them. From the fourth to the fift, that is, the buye upon the Hound, the courſe is eaſt, which lyeth thwart of the Hound, on a poynt which lyeth off from Heckeſand, which in comming in, men might at unawares ſayle within alongſt to the ſouthwards of the buye, therefore you muſt leave that alſo (as well as the former) on the ſtarboard ſide, and ſayle alongſt to the northwards of it. Betwixt this foreſayd buye upon the Hound, and the fourth, lyeth another buye upon the north ſide of the deep, upon the ſouthermoſt poynt of the New-grounds, which you muſt leave on the larboard ſide, and runne about to the ſouthwards of it. From the buye upon the Hound to the ſixth, the courſe is northnortheaſt, and two fathom deep. From the ſixth to the ſeventh and laſt buye northeaſt and by north, and the deepe alongſt to the northwards of it 3. fathom. Being paſt the laſt buye, follow the beakons, which ſtand alongſt on the n. ſhoare, untill you come to Hulck, runne cloſe alongſt to the ſouthwards or to the eaſtwards of them, for to avoyd a tayle of ſand, which commeth off from the eaſt ſhore, which men might unawares ſayle within into a Dead-creeke. From the Hulck to Schulperzile, the courſe is eaſt ſ. eaſt. In that reach, the beakons ſtand on the ſouth ſide upon the Ballaſt-plate, and you muſt run alongſt to the northwards by them, leaving them on the larboard ſide. From Schulperzile to Tonningen the courſe is northnortheaſt. Before Tonningen the Eyder is at the ſhowldeſt, and at low water no deeper then one fathom and a halfe. From thence further in towards the New-town called Frederickſtadt, there is depth enough.

The depths here before mentioned are all to bee underſtood at low water. From Tonningen towards Wollerſum, the Eyder lieth alongſt n. eaſt and by eaſt. From Wollerſum towards Harebleck n. n. weſt. From Harebleck towards Reymers-bode northeaſt. From Reymers-bode towards Nyenzyle eaſt ſ. eaſt. From Nyenzyle to the Nyen-veere ſouth.

Betwixt the fourth buye upon the Eyder and the fifth, that is, the buye upon the Hound, over againſt the buye upon the ſouthermoſt poynt of the New-grounds, ſtand two beakons a little to the ſouthwards of the foreſayd two buyes, the weſtermoſt upon the eaſt poynt of the Blavoort, or the Iron Hendrick, and the eaſtermoſt upon the taile of the Hound. Betwixt theſe two beakons goeth in through a deepe ſoutheaſt, or ſoutheaſt and by eaſt, where you may ſayle through alongſt by the beakons upon the Iron Hendrick (which you muſt leave then on the ſtarboard ſide) untill you come into the end of the North-pipe, which lyeth from thence about weſt into ſea. You may ſound in at the North-pipe, comming in out of the ſea by the S. ſhoare in 3. and foure fathom, untill you come to the foreſayd beakons, and then about by them northweſt, or ſomewhat more weſterly up unto the Eyder, or elſe you may runne further alongſt by the foreſayd ſouth ſhore, untill you come about the beakon upon Hoedmeerſand, and then forth betwixt the Iland Bulheads and Buyſen alongſt by the Beakons upon Hoedmerſand, with many poynts and bights on to the ſouthwards, and come out at laſt upon the Old Elve, about northeaſt from the New-work againſt the New-grounds, which is not well to bee ſayled, but of thoſe that are there very well acquainted.

Alongſt by the North ſhoare of the Eyder, cloſe to the ſouthwards of the little ſand-hils, the ſoutherheads, runneth in yet a Land-deepe, eaſt and eaſt and by north in, and commeth out againe upon the Eyder by the Hulck, that ſerveth not but onely for ſmall ſhips, there remaineth at low water but five foot.

Of the Tydes and Courſes of the ſtreames.

Before the Scholbalgh, the Lawers and the Schille, and before the Weſter-Eems a ſoutheaſt and northweſt Moone maketh high water.

Before Embden and Delfzyle a n. or n. and by e. and a ſ. or ſ. and by w. Moone.

In the Eaſter-Eems and Burckumbalgh a ſ. ſ. e. and n. n. w. Moone.

Before the Channels betwixt the Eaſter-Eems and the Weſer, a S. and S. and by eaſt, and a N. and N. and by w. Moone.

In the fareway betwixt the Flie and the Elve, the foreflood commeth out of the n. ſea, and turneth about by little and little with the ſunne, falling the halfe tide e. n. e. alongſt the ſhoare, and the ebbe w. ſ. w.

Before the Weſer and Elve, and alſo in the Eyder a South and North Moone maketh high water. The flood commeth there out of the northweſt, and the ebbe out of the ſoutheaſt, and fall very ſtrong over the grounds that lye out there.

Under Holyland a n. n. e. and ſ. ſ. w. Moone maketh full ſea.

Of the Depths about theſe places, and in what depths men may ſee the land.

Schiermonickoogh men may ſee in 12. and 13. fathom 4, great leagues without the land.

Rottum and Borcken men may ſee in 14. and fifteene fathom.

Thwart of Borckum the ground is groſſe red ſand, mingled with ſome black.

Juyſt, men may ſee in 13 and 14 fathom, 3 leagues without the land it is 12 fathom deep.

Buys & Norderny men may ſee from the poop in 12. and 13. fathom.

Baltrum Langeroogh and Wrangeroogh, men may ſee it in 14, and 15. fathom.

Thwart of Botjadigerland, Keidingerland and Ditmarſen, the grounds lye ſo farre without the land, that you cannot ſee the coaſts, except you climb up into the top.

About Holyland it is deep 7, 8, and 9. fathom, to wit, on the inner ſide, but without on the weſt ſide 15, 16, 18, and 19. fathom, in ſuch depth you may ſee the land of Holyland from the weſtwards.

Courſes and Diſtances.

The coaſt alongſt theſe ilands lyeth eaſtnortheaſt and weſt ſ. weſt.

From Borckum-Riffe to Wrangeroogh eaſt northeaſt 16. leagues.

From the Eaſter-Eems or Iuyſt-riffe to the Steep-buye or Schortunne e. n. e. 20 leagues

From the Eems to Flamborowhead weſt ſomewhat northerly 85. leagues.

From the Eemes to Bovenbergen north and by eaſt 60. leagues.

From the Eems to Holyland the courſe is n. e. and n. e. and by eaſt 21. or 22. leagues.

From Wrangheroogh to the New-worke eaſtnortheaſt 8 leagues

From the outermoſt buye upon the Elve to the Eyder, north 7. or 8. leagues.

From Langheroogh to Holy-land, Northnortheaſt 10. leagues.

Holyland and the outermoſt buye in the Weſer lye North ſomewhat eaſterly, and ſ. ſomewhat weſterly. The buy upon the Head in the Weſer, and Holyland lye n. and ſouth aſunder 8. leagues.

The ſteep-buye on the New-work and Holyland lye ſouth eaſt and by eaſt, and northweſt and by weſt aſunder 8. leagues.

The

Pascaarte Vande West en Oostzÿde Van Jutlant Mitsgaders de Belt tot Fleusborch Nieulÿx Beschreven Door Jacob Aertsz. Colom

Les Costes Marines Orientale et Occidentale de Iutlande

Frindel
Lyrou
Dwaelgronden
Hoorns Rif
Grasholm
Lyne Holm
Dee
Schagen
Lodbÿ
Ludelou
Skeenaskoest
Steen
Schraagh
Kalegrondt
Orunthuÿn
Ramsont
Grenste
Grimstee
Grote
Ebeltuÿ
Hals
Alborgar
Horsens
Randersen
Horsthals
Rolbeknuÿt
Werlum
Kleetorp
Oosterhoeck
Orin
Holmen
Ringkiobing
Bommelsvin
Swarksburgh
Ribecopen
Heusburgh
t Lant Lytse Vlieter
Vlieter
Ribecopper diep
Blaauwe bergh
Jutsche
Rif
Kal
Aerhuÿs
Pharus

Duytsche mylen 15 voor een graad — Lieues d'Allemaigne 15 en un degr
1 2 3 4 5 6 7 8 9 10 11

Engelsche en Franſche mylen 20 in een graad Lieues Angl. et Fra. 20 en un deg
1 2 3 4 5 6 7 8 9 10 11 12 13 14

ZEE LANDT

Laland

Nicopen

Gorschouw

Colberstandt

Museou

Kollenborgh

Rosnes

Casteuer

Armis Domus

Spro

Stens Steutkopen

Laatste Landt

Defrisel

Boltsack

Romps

Talsma

Lambgard

Saurso

Carlemunde

Odense

Ebeloe

Endslau

Bommens

Odensee

Sonderborg

Kopingh

Tarep

Hunck

Vlkul

Vlsborg

Sikenborg

Flensborgh

Apenrade

Hadderslen

Koldingen

Milsaar

Eems

Orgard

Weel slu

Ryper

Husum

Lutke Tonderen

Tonderen

Phanu

Rem

Jurtsant

Coersant

Lyst

Straut

Tonnegen

Gartinge

Ees

Vlie

Ruckloser

Vubel

Caplen

Smalle diep

Noortdiep

Swindiep

Silver Ree

Vlsschers gat

Vlie de Quade

The outermoſt Buy in the Eyder and Holy-land, lie e. ſomewhat northerly, and weſt ſomewhat ſoutherly aſunder. 7. or 8. leagues

From Holyland to the Holms before Yarmouth, the courſe is weſt ſouthweſt, or ſomewhat more weſterly 72. leagu.

From Holy-land to Scarbrough and Flambrough head, weſt or ſomewhat more ſoutherly 93. leagu.

From Holy-land to Tinmouth, or Newcaſtle, w. ſomewhat more northerly 106. leagues.

From Holyland to Lieth in Scotland, w. and by n. and ſomewhat more northerly 120. leagues.

From Holy-land to Boecknes northweſt and by weſt 120. 122. leagues.

From Holyland to Hanglip in Hitland northweſt 146. leag.

From Holy-land to Bovenbergen, North and by weſt 50 leagues.

From Holy-land to the Horne, or Dodebergh, north 32. leagues.

From Holyland to Knuyts-deep, or Ryper-deep, the courſe is n. and n. and by e. 25. leagues.

From Holyland to the Deepe of Silt, or Liſt, n. and by eaſt 19. leagues.

From Holyland to Ameren, or Small-deep, the courſe is n. n eaſt ſomewhat eaſterly 10. leagues.

From Holyland to the outermoſt buye in the Hever, n. e. 8. leagues.

When you lye by the outermoſt buy in the Hever, in cleare weather, you may ſee Holyland.

How theſe Lands doe ſhew themſelves at ſea.

Thus ſheweth Schiermonckoogh, being two leagues thwart off from you

Thus ſheweth Borckum and Rortum, when you ſayle alongſt by them, being two leagues a ſeaboard the Land.

Thus ſheweth the Iland Juyſt, being about two leagues off from you.

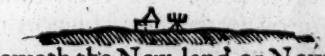
Thus ſhew the Ilands buys, and Norderney, being two leagues, thwart off from you.

Thus riſeth Baltrum, when you are about two leagues a ſeaboard the Land.

Langeroogh ſheweth it ſelfe thus when you are about two leagues off from it.

Thus ſheweth Spikeroogh, when it is about two leagues from you.

Thus ſheweth Wrangeroogh when it is about two leagues thwart off from you.



Thus ſheweth the New-land, or New-worke when you are at the entring of the Elve.

Holyland northeaſt and by eaſt from you ſheweth thus

Holyland northeaſt and by eaſt five leagues from you, ſheweth it ſelfe thus.

The third Demonſtration.

Wherein

Are deciphered the ſea-coaſts of the weſt and eaſt ſide of Iutland: together with the Belt untill you are paſt Laland and Langheland.

FRom the New-worke, or Steepe-Buye to the Hever, the courſe is North tenne leagues, when you come about halfe wayes betwixt them both, you ſhall meet with the foreſaid ſand or tayle of Blavoort in the depth of two or three fathom. In this fare-way you muſt be very carefull of your tydes, that you come not upon the grounds, which lie far out a ſeaboard the Land, the foreflood falleth there very ſtrong thwart over the grounds towards the Land, and the ebbe to the contrary.

For to ſaile from Holyland to the Hever, goe on northeaſt ſomewhat eaſterly, or according as the winde and tide ſhall be, and runne towards the grounds, untill you come in ſix or ſeven fathom, and then you ſhall eſpye a ſteeple which is ſharpe, and indifferent high, called Pielworme, bring that northeaſt and by north from you, a maſts length to the Southwards of the ſouthermoſt Cow-houſe, upon the little Iland Nuball, keepe that ſo ſtanding, and ſayle towards it, and you ſhall ſo finde the outermoſt buye, from that to the ſecond buy, goe on northeaſt, and northeaſt and by eaſt, being come to it, Pielworme ſteeple ſhall ſtand Northnortheaſt from you. From the ſecond buye alongſt inwards, the courſe is northeaſt and by eaſt. Being come in ſo a good wayes, you ſhall finde two beakons on the ſtarboard ſide, upon a dry ſand, called the Quade, there over againſt commeth the north balgh in the right Hever. From the firſt beakon to the ſecond and third, the courſe is eaſt and

by north, ſayle all alongſt by the beakons, leaving them on the ſtarboard ſide. To the northwards of them betwixt the firſt and third beakon, it is full of ſands and plates, where you might at unawares ſaile within. By the third beakon cometh the ſouther Balgh into the Hever. From that third beakon to the two other beakons the courſe is n.e. and by eaſt, being paſt that you ſhall come by the greene land on the ſtarboard ſide, there it is a ſquare deepe, large and broad channell, from thence you may ſayle alongſt amidſt the channell unto Hoeſem at the bridge, or anckor thereabouts every where, where you will.

Without in the Hever the north ſide is ſteepe, therefore keepe the ſouth ſide untill you come within the beakons, in the channell is at halfe floud two fathom and a halfe water, and without the channell it is very farre flat. Somewhat without the Hever lyeth alſo a banck, whereof men muſt bee carefull when they will ſayle in there. A ſouth and north Moone maketh there the higheſt water.

The South Balgh goeth in to the ſouthwards of the foreſaid bank the Quade, in right with the little Iland Utto, and alongſt to the northwards of it, it is from without a league and a halfe to ſayle to Utto. From Utto it lyeth in alongſt northeaſt and by north, and commeth out into the Hever by the third beakon.

The north Balgh lyeth in to the northwards of the Hever about eaſt and by north, or weſt and by ſouth from Pielworme, right in with the foreſaid little Iland Nuball, which you muſt leave on the larboard ſide running in alongſt by it, and ſo come into the Hever, againſt the foreſaid drye ſand, the Quade: you may alſo (comming in at the North Balgh) ſaile up to the northwards from the Iland Nuball unto the end of Strand, till you come thwart of a flat Church, and anckor there behinde the ſhowlds, that is a deepe Balgh or Creek.

Smalle deepe.

Three or foure leagues to the northwards of the Hever, lyeth the Smalle-deep. For to ſayle off from Holyland toward it, goe on northeaſt and by north, and runne to the grounds, about weſt and by north, from the Pielworme, the ſouth end of Ameren ſhall then bee north or thereabouts from you. Seek then to the ſouth grounds, and ſound about by them, and there you cannot doe amiſſe, it is a flat riſing ground farre without the land. On the north ſide lye many ſands, ſhowlds and poynts, that lye out, which men might (without good heed-taking) ſaile within: ſaile in therefore alongſt by the ſouth ſide north and by eaſt, northnortheaſt, and northeaſt and by north, and ſo you ſhall find one ſhowld or breach, leave that on the larboard ſide. If you leave that on the ſtarboard ſide, you ſhould runne into a dead Balgh or creek, wherein is at the firſt at leaſt 7. fathom depth, but runneth at laſt by litle and litle to nothing: you may alſo runne along by that foreſaid ſhowld by your lead, untill you come within it, comming then thwart of the ſouth end of Ameren, you might unawares ſaile within the ſouth grounds behinde a ſhare which ſhooteth off from the grounds of Vooren, therefore keepe the ſouth ſide untill that you come thwart of the Iland Vooren.

The Red-deepe.

For to ſayle in at the Red or Silter-deepe, comming from the northwards, or out of the ſea, runne in ſight of the Iland Ameren. About the middeſt of Ameren lyeth a white round hill, a little higher than the other Hommocks in a low plaine valley. Bring that northeaſt from you, and run in ſo right with it, untill you come within the riffe that ſhooteth off from the Voortrap, and commonly is called Ameren Borne, and ſo you cannot take any hurt of it, and then you ſhall have upon the poynt of the Riffe not leſſe then three fathom water, and within the ſame riffe eleven, twelve, or thirreene fathom. Saile ſo in untill that the north end of Ameren be north and by eaſt from you, and then run right with the north end of Ameren, untill you come within the dry ſand, and there you may anckor where you pleaſe, or ſayle ſofarre in as you will, and ſound it all alongſt by the Riffe. The Strand of Ameren is a faire Strand without any tayles that men might ſayle within. When the foreſaid hill upon Ameren is eaſtnortheaſt from you, and ſayle ſo right with it, then you run too neare the foreſaid Riffe of Silt, the hill is then alſo in two parts, the northermoſt is then the ſmalleſt.

Ameren-Borne.

For to ſayle in at the Red-deepe, or Silter-deepe, comming off from Holyland, and that you have gotten ſight of the land, then bring the north end of Ameren north and by eaſt from you, untill that you be come in betwixt Ameren, and the Riffe of Silt, runne then in alongſt by the Strand of Ameren, untill you come about the north point of Ameren and ſo along to the eaſtwards, untill that Ameren lye ſouth and ſouthſouthweſt from you. You may not ſayle into this channell further to the eaſtwards, for then you come againſt the Iland of Vooren, but you may ſayle to the northwards alongſt betwixt Vooren and Silt, till you come before Lit. In Silter-deepe is upon the ſhowldeſt three fathom water, being over it, there is againe eight, nine, tenne, and twelve fathom, there lye two riffes, or bad ſands, the one about weſtſouthweſt from Ameren, dry above water, that is, very farre flat, to wit, in three, foure, or five fathom, it is called of the Juthes the Borne, or Ameren-Borne, although that it be not faſt to Ameren, for the Red-deep goeth in betwixt them both. It is not alſo faſt unto the Voortraps, or that ſouth end of Silt, although it commeth ſhooting off from it, betwixt them goeth out into ſea a deepe of about a fathom and a halfe, where the fiſhermen doe dayly goe out through for to fiſh, eſpecially thoſe of the Iland Vooren, this is the outermoſt ſand that lyeth on this coaſt. They that uſe this coaſt much, either for Rypen, or the quarters thereabouts are very much afraid for this Ameren-Borne, when they come off from Holyland, they finde this ſhowld about weſtſouthweſt from Ameren.

The other ſand ſhooteth off from the ſouth end of Ameren, lying about ſouth, and ſouth and by weſt into ſea alongſt the Land, that is alſo called by many the Borne, or Ameren-Born. He that commeth off from Holyland, and is bound to the northwards, need not feare ſo much for the ſhowld, for it ſhooteth out moſt by the land.

The Haven of Liſt.

About eight leagues to the northwards of Silter-deepe lyeth the Haven of Liſt, which runneth in by the north end of the Iland Silt. For to ſaile in there, comming from the ſouthwards, runne ſo long to the northwards in ſix or ſeven fathom, that you may ſee a little Iland without the poynt (which lyeth within theſe outer Ilands) upon which ſtandeth a houſe, called Jeurtmans houſe: when that houſe commeth a maſt length without the point of Liſt, then goe in eaſt and by ſouth, and eaſtſoutheaſt, keepe thoſe markes ſo ſtanding, untill that you be within the poynt of Liſt, edge then up to the ſouthwards about the poynt, and anckor before the Vuchts houſe, there it is nine and ten fathom deep. At the entring of the channell lyeth a plate or ſand, called Haef-ſand, that you muſt leave on the larboard ſide, when you come in, it is on the off-ſide very flat, and good for to ſound when you come from the northwards. For to avoyd that when you come from the northwards, edge off ſo far from the ſhore, that the red Cliffe come without the ſand-hils, or that you may ſee it plainely: Then you may goe well over Haef-ſand, with a ſhip that is not of a very great draught Likewiſe when you come out at the channel of Liſt, and are bound to the northwards, ſayle ſo farre out that you may ſee the Cliffe, and then you may goe over the foreſaid ſand, which lyeth from the ſouth end of Rem a good wayes into ſea. Haeffand.

On the ſouth ſide of the channell of Liſt lye alſo two ſands or bancks alongſt the ſhoare not very farre without the ſtrand, the innermoſt or northermoſt is called Barling-ſand and the outermoſt, Ruſt, or Ruſting, that lyeth to the ſouthwards almoſt thwart of the red Cliffe, betwixt theſe ſands, and the Barling-ſand. Ruſt, or Ruſting.

& the ſtrand of Silt goeth in the Land deep. For to ſail in there comming from the ſouthwards, you muſt ſeeck betimes to the ſtrand of Liſt about the red cliffe, becauſe of the Ruſt which lyeth off from the northend of Liſt a litle without the ſtrand. When that you haue the ſoundiug of the ſhore, and are come ſomwhat within that red cliff, there ſhall meet you a flat from the ſhore, which you muſt ſomewhat avoid, and then you may ſound very well: keep all alongſt the foot ſtrand, there you can take no hurt of it, From the Inner poynt of Liſt ſhooteth off alſo a little riffe, where of you muſt take heed. When that you are come within the Innermoſt poynt of Liſt, then you may anckor where you pleaſe. If you will goe to Luike Tonderen, then leave that ſand (which lyeth to the ſouthwards of Iure-ſand (on the ſtarboard ſide, & runne through betwixt them both. He that is bound to Hoeſem or Silt over the Wad muſt leave that ſand on the larboard ſide. Upon Vooren ſtand two or three trees, theſe you muſt keepe over the weſtermoſt church or ſteeple, and run ſo alongſt unto Vooren.

Betwixt the Ruſt and Barling-ſand goeth a faire deep channell through called the New deepe, right in alongſt to the ſouthwardes of Rock-ſand, that is a ſhowld which lyeth to ſea-wards of Ruſt and Barling-ſand. For to ſaile in at that New-deepe, bring the white cliffe upon Silt eaſt, and eaſt and by north from you and run in ſo right with it, and you ſhall fall right in the New-deep betwixt theſe two bankes, leaving Roockſand or the Maber on the larboard ſide of you, run in ſo alonghſt by Ruſt, but come alſo no neerer to it then in foure fathom, untill that you come into the Land-deep, but comming againſt the ſhoare, and getting ſhowlding of the ſtrand, run in alongſt by the foot-ſtrand on inwardes, as is rehearſed in the deſcription of the Land-deep.

Betwixt Haef-ſand, or Haes-ſand, and the Iland of Rem goeth in yet a little Land deep of about a fathom a halfe water. The Iland Rem is three leagues long, and very flat on the off-ſide, ſo that you ſhall ſcarce ſee that land in ſixe or ſeven fathom.

About eight or nine leagues a-ſeaboard of the Iland Silt lyeth another banck along the ſhoare of eight or nine fathom, and is about two leagues long, about ſo long as the Iland is, Betwixt this bancke & the Iland it is thirteene fathom deepe, being in nine fathom a ſeaboard the Iland Silt, then lyeth Holyland about ſouth from you.

Knuyts-deep, or Riper deep.

From the channell of Liſt to Knuyts or Ryper-deep the courſe is north & ſouth about ſeven leagues, but Ryper-deepe & Holyland lie north ſomewhat weſterly, and ſouth ſomewhat eaſterly one from the other for to ſaile into Knuyts or Ryper-deep comming from the ſouthwards, run about by the flat of Rem and Manu towards the ſouth end of Phanu, called Souther Head, or Souther-heigh and ſo you ſhall ſee two capes upon a drye ſand, ſomewhat to the ſouthwards of Southerhead; bring thoſe capes a little through one another, to wit the innermoſt or longſt a little or a handſpikes length to the northwards of the ſhorteſt or outermoſt, and then they ſhall ſtand eaſtnortheaſt from you, keep them ſo ſtanding, and ſaile right in with them, and ſo you ſhall finde the outermoſt buye, lying on the north ſhoare in foure fathom in the channell, called Old Ryper-deepe, leave that buye on the larboard ſide, and then goe inwards eaſt and by north, eaſt, and eaſt and by ſouth unto the ſecond buye, you muſt runne alſo about to the ſouthwards of it, for thwart of it commeth a ſhowld ſhooting off from the north ſhoare, from the outermoſt cape towardes the ſecond buye, which you muſt avoid.

Or keepe the ſounding of the ſouth ſhoare called Coerſand, & run by your lead firſt eaſt and by north, then eaſt, and at laſt eaſt and by ſouth in by it, you ſhall finde there upon the ſhowldeſt not leſſe then ten foot at low water and, common tyde, there within it is again 6, 7 and 8 fathom deepe. Being paſt the capes, then luffe up to the northwards, about the ſand where the capes ſtand upon, & anckor there where you pleaſe, there it is wide and broad, and alſo deep and ſteepe, ſo that there you can take no hurt. The Ryper ſhips that are bound out, doe lye there for to ſtay for a winde. Behinde the Iland Manu it is 6 and 7 fathom deepe, there alſo men may ride, from thence you may go up the deep to Rypen, but not up along to Rype with great ſhips, cloſe to Rypen the deep endeth, ſo that there is a showld neck betwixt both, where there is no more then 6 foot dept. With ſmall ſhips you may alſo ſaile about behind Rem towards Iurſand, there is a low water about 7 foot water.

Comming from the northwards for to ſail into Ryper-deepe, you ſhall alſo runne on to the ſouth end of Phanu, untill that you ſhall eſpye the foreſayd capes, and doe then further as is above taught. This channel is not the beſt channell in foule weather, for it is narrow and farre off ſhould without it: but when you ſhall be entred into it, you may eaſely ſee both ſides breack, if it blow any thing hard.

A ſouthſouthweſt & northnortheaſt moon maketh here the higheſt water.

The Grouwe-deepe.

About northeaſt, or northeaſt & by north from the north end of Phanu lyeth a little Hill, called Luysbergh: a little to the northwards of it lyeth a long plaine ſand-hill, called Langeleg: from thence lyeth the land towards Zuyder-zyt weſtnorthweſt and eaſtſoutheaſt. Langheleg.

Betwixt the north point of Phanu & Langeleg goeth in that Growe-deep. For to ſail in there when you come from the ſouthwards, run alongſt the Iland Phanu, and about by the north end of it (which is farre flat. (When as that you get deeper water, you ſhall ſee three or four hommocks about northeaſt frō you, upon the high land with a little flat ſteeple, called Holm, or Bruynum. Bring that little church a cables length to the northwards of the Hommocks, goe in then northeaſt, and keep the ſouth ſhore, untill you come within that dry ſand, which ſhooteth off from Phanu, called Smeurſand, you may run to that upon your ſight without doing amiſſe, but leave that on the ſtarboard ſide when you come in. The ſhores are there abouts both of the very ſteepe, as well Wiſdike, (that is the Plate which lieth in the channel) as alſo Smeurſand, but without the ſhoares are flat. When you are paſt the poynt of Smeurſand, edge then over to Wiſdike, and ancker there untill that you have the loweſt water, and then you may ſaile to Hartingen, and go on foot to Wardt, or Woerdt, which lyeth eight or nine leagues within the land, the river is very croocken, upon the which here and there lyeth a Gentlemans houſe. Smeurſand. VVardt.

A ſouthſouthweſt & northnortheaſt moon maketh there the higheſt water, and there it flouweth with a common tide about a fathom vp and down.

From Phanu to Schellingkroegh it is four leagues, betwixt them lyeth Zuyder-zijt a little river of eight or nine foot water. The land betwixt Langelegh and Zuyder-zijt is ragged land with ſand-hilles, & rough, being grown with ſpirie graſſe, or heath. If you ſhould fall with the land at Zuyderzijt, & that you could not lead it into the channell, then chooſe the land of Langelegh, you may run to it without danger, keepe in two fathom and a halfe, and you cannot ſaile amiſſe of this Kroegh: for you may found this land all alongſt in two fathom and an halfe off from Langelegh untill you come within Schellingh-kroegh, but if you run in three fathom, or three fathom and a halve, you ſhall ſaile without the drieſand, and run about aſeabeard of the forenamed Kroegh Schellinghkroegh lyeth in moſt northweſt men lie there within, ſheltred for all winds, like as men doe lie at Coningsborough in the Kettell. If ſo bee that you come from the northwards, and are bound inte this Haven or Kroegh, you may run about by that drie ſand in three fathom, when you come by the innermoſt poynt of that drie ſand, there ſhooteth off a little taile of ſand, but you may ſee it well, and keepe your ſelfe from it: when you come to the eaſt end of that ſand, luffe up about it, untill you come into that Kroegh, and ancker there in two fathom and a foot, Schellingkroegh. Zuyderzijt.

foot, it is there very wide, you may make there a good board, & turne it in to windwards. A ſouthſouthweſt and northnortheaſt moone maketh there the higheſt water, the farther you come to the northwards to Iutland, the leſſe tide goeth, and the leſſe it floweth up and downe.

Doodenbergh. At the north end of the foreſaid drie ſand lieth the Doodenbergh, that is a ſhort hommock of a ſand-hill, which lieth alone. When you are ſomwhat off from it, then it lieth under the other land, that you cannot ſee it, when you come from the ſouthwards or the northwards you may ſee it. From the Dodenberg unto that ſouth end of the drie ſand, it is all alongſt a faire ſtrand, and flat ground. For to ride under the drie ſand, you may ſound about it comming from the northwards, & get ſmooth water for a northweſt wind, and alſo for weſterly windes.

A little to the northwards of the Dodenbergh lyeth the poynte called the Horne betwixt Zuyderzijt and Weſterzyt making there a Horn of the land: to the ſouthwards of it the Coaſt lyeth eaſtſoutheaſt and weſtnorthweſt towardes the Growe deepe: to the northwards of it north, and ſouth towardes Weſterzijd. Weſterzijd is a village lying betwixt the blawenbergh & the Horne.

Reefshorne. About this poynte or Horne runneth off a long banck aboute twelve leagues weſtſouthweſt into ſea: called Reef ſhorne, or as ſome do name it Devillhorne, which lyeth at ſome places altogether drye, eſpecially ſeven or eight leagues from the ſhoare, where it is not deeper then two fathome and a halfe, or three fathom a foote leſſe. A ſhippe that ſayleth upon it, men can but even ſee it from the land it is at the deepeſt by the land, to weete four fathome lacking a foot. He that commeth there from the northwards with a ſhip of a great draught, muſt take verie good heede, for it is upon the northweſt ſide of ſtepe, that men ſhall have one caſte two and twentie, the next caſt fifteene, and the third caſt no more then three fathome.

When you fallwith the land with weſterzijdt or to the northwards of Reefſhorne, you may ſound alongſt by the ſhoar in ſixe or ſeven fathom, untill you come neare the foreſayde Horne: you ſhal then alſo finde another ſhowld The Owl. Riffe, that runneth off from the land, called the Owle, which is alſo verie ſteepe on the north ſide: from the northwards you may not come nearer it, then in ſeven fathome. A little to the ſouthwardes of it beginneth Reefſhorne to runne off from the ſhoare, it is there a narrowe banck, you ſhal not finde there leſſe then three fathome, or three fathome lacking a foot water, at two or three caſt, according as it ſhall blowe hard or ſoft, and that you ſhal make your waye, and then you ſhal gette preſently againe five fathome, and ſound it about by that showlde ſand, whether you deſire to be.

According to the opinion of ſome, Doggers Sand beginneth from this banck, When men ſette ſayle earlie in the morning out of Rinkoppers deepe, with a ſouthweſt waye, and a good northeaſt winde then they are aboute four of the clock in the afternoone yet in nyne fathome: whereby it showld appeare, that Doggers Sand showld have his beginning at this banck.

For to knowe the land hereaboutes: Aboute four leagues to the northwardes of the foreſayd Horne lyeth a high hill a little from the ſtrande, called the Blawenberg, going playn downe on both ſides, which is ſomewhat blacker then the other land, being grown with ſpyrie graſſe, to the ſouthwards of this Blawebergh lieth that fishers village Weſterzydt betwixt that village and the Horne lyeth one black hommock, and alſo a Gentlemans houſe, otherwiſe the land is altogether full of hommocks.

Rinkopper deepe

TO the northwards of the foreſaid Blawenbergh lye three or four lowe white Sandhilles, & by the haven of Numen alſo two great white Sandhilles cloſe one by the other. To the northwardes of theſe Sandhilles runneth in that Haven of Numen, the land lieth betwixt the Haven of Numen and the Doodenbergh, moſt ſouth & north about ſeven leagues, all alongſt a faire ſtrand: the beſt to be knowne of this coaſt, is the foreſayd Blawebergh, and thoſe two foreſayd white Sandhilles.

Rinkopperdeepe. For to ſayle into Rinkopperdeep or the haven of Numen runne alongſt by the land of Weſt-zyd, in ſixe or ſeven fathome, untill that you come to the two foreſaid great white Sand-hilles, and then you ſhall ſee upon a lowne land two capes, upon each of them ſtandeth a barrell: Bringe them one in the other, and then they ſhal ſtand north, or north and by eaſt from you, faile in right with then, and you ſhall finde a buye, except it be laide ſomewhere els. Gladde Iaep. Right before the havē of Numen lieth a Sandplate, named Gladde Iaep. For to ſayle into the ſouther channel, then leave that plate on the larboard ſide; & run in cloſe by the ſouth shoare or foot ſtrand (where the aforeſayd white Sandhilles doe lye upon) right with the Capes, and there you cannot doe amiſſe, but runne in boldly by it upon your lead, that is the verie ſureſt waye of all to ſayll in alongſt by the ſtrand, when men are carefull of the lead.

Being paſt Gladde-Jaep, runne then towards the north shoare, you may ſayle about by it ſo cloſe as you will, it is a lowe plaine poynte, altogether cleane and verie ſteepe. When you are come within this poynt, you may anckor where you pleaſe. This channell lyeth in moſt north and north and by eaſt, untill you come within Gladde Iaep, and thē ſomewhat more eaſterlie towards the foreſayd poynt. In this channell goeth an indifferent ſtrong tyde, becauſe there lyeth ſuch a great Sound within. It flowet there little up and downe, no more then two foot and a halfe, with a common tyde. A ſouthweſt and northeaſt Moone maketh there the higheſt water. Right to the northwardes of Gladde Iaep runneth in another channell, but there is no more but eight foot water.

Further within the Haven of Numen it is Pilots water, but ſhippes that are not of greate draught may well ſaile up, eſpecially at a lowe water. The deepe runneth alongſt by the ſtrand of Numits, keeping alongſt by it you can not doe amiſſe: ſoo ſoone as you goe off from it, you ſhal be in daunger to ſayle within the ſhares or tayles which lye off from the Wadt towardes the land of Numit, therefore runne cloſe alongſt by the aforeſayd ſtrand of Numit ſo long, until that a little church with a flatte ſteeple (about eaſt from you againſt the high land of the Holme) come to the ſouth ſide of the highland: then you are within the tayles and ſands that lye out, leave then the ſtrande, and goe in northnortheaſt, and northeaſt and by north, untill that a rounde hommock come cloſe to the ſouthwardes, or right over a little blew church upon the high land of the Holme. Goe then in alongſt northeaſt and by eaſt untill that the foreſayde little blewe church commeth over a gentlemans houſe, beneath in the lowe land, cloſe to the water. Sayle then on north, and by little and little north and by eaſt, untill you come before Rinkoppen, it is there broade, large and wide, and the right deep two fathome and two foote.

Rinkoppen and the havens mouth of Numen lye foure leagues aſunder, one from the other.

To the northwardes of Rinkoppen goeth a little river into the land, upon which lye two little townes, ſeven or eight leagues in the land, the one named Hoſtebro and the other Huysbuy.

A halfe league to the ſouthwards of Boevenberghen goeth in yet another little haven inwardes out of the ſea. named Troſmone, there ſtand two maſtes, you muſt keepe them one in the other, and runne ſo into it: there lyeth a little village within called Troſmonde. From thence you may ſayle over the Wadt to Rinkoppen.

This little haven is not to be reckoned for a Haven becauſe ſometimes it is caſt too, and ſometimes there may goe in and our againe Boates or Crayers and ſmall ſhippes.

From Rinkopper Deepe or the Haven of Numen to Boevenbergen the land lyeth moſt north and ſouth tenne leagues, there is all alongſt betwixt thē both a faire ſtrand, with wite ſandhilles, growne with ſpyrie graſſe.

When

When you saile alongst by it, you may see the blewe double land of Rinkoppen, (called the Holmes) alongst over this land. Rinkoppen deepe.

Betwixt Boevenbergen and the Reefhorne lye some banckes of seven, eight and nine fathom, and also some that are deeper.

Boevenbergh is a long smooth hill, having in the middest a high round hommock or hill, and upon that hill standeth a church with a steeple: when you come thwarts to land with Boevenbergen, it sheweth it selfe in three hilles, the middlemost is the highest, upon which standeth the foresaid church, with a flat steeple: upon both sides of that hill stand also other churches, but they are not so high: you may see the land in thirteene and fourteene fathome, the ground is grosse red sand with some little stones therein. Gladde Iacp.

When Boevenberghen is eastnortheast from you, it sheweth it self in a long hill, with some dale in the middest on the north side, with a church, and also a church on the south side, & also another hill to the northwards of it.

From Boevenbergen to the Holmes the land lyeth northnortheast nine or tene leagues, betwixt them it falleth in with a Bight, it is black land with hommocks, and sandhilles growen with spyrie grasse, here and there standeth a flat steeple in the land.

Aboute five leagues from land lyeth a bancke of tenne fathome, but it lasteth not long before you get againe deeper water.

Betwixt Boevenberghen and the Holmes lyeth the great Juttish Riffe west into sea, running over it in twelve or thirteene fathome, then lyeth the Naze from you, northwest & by north 24 leagues, running over it in seventeen or eighteene fathome, you may see the land, on the north side it is grosse sand, on the south side stonie like as pease and beanes.

Westnorthwest from boevenberghen about eight leagues it is sixteen fathome deep, grosse stonie sand ground: ten leagues from the land it is twentie fathome deep grosse stonie sand, like to pease.

Southwest and by west from Boevenberghen about nine leagues, it is 25 fathom deep, redde and black sand ground that is the ground of Doggers sand.

The Holmes is a plain pointe, going downe steepe on the northeast side upon the middest of the hill standeth a square church without a steeple. When that highest of the land is southsoutheast from you, and that you can but even see the north end of it, then it is fifteen fathom deep, grosse rough sand, with some little stones amongst it.

Two leagues northeast, or as some say, somewhat more easterly, off from the north pointe of the Holmes: to with, betwixt the north poynte and the Holmes, and the easter pointe, lyeth a stonebanck (in manner as the Trindell of Lesolde) upon which there is no more then twelve foot water, so that there remaineth about two third parts of the water betwixt that Stonebanck and the north poynt, and the other third parte betwixt the Easter poynte & the aforesaid Stonebanck: there have divers shippes beene lost upon it. The foresaid Easter point lyeth about four leagues to the eastwards of the Holmes, and is also a high steepe poynt, as if it were the Holmes. Right thwart of this easter poynte shooteth off a riffe almost a league off into sea, which you may sound about in seven fathome. Some say, that men may sayl through betwixt that riffe and the land,

From the Holmes to Robsnot or Robbeknuyt the course is northeast nene leagues.

A little to the westwards of Robsnot in the bight towards the easter poynte, neareste to Robsnot stand five churches with flat steeples. There lye also two blewe lands betwixt the easter poynte and Robsnot, in the high, you may see also a cloven hill or sand-hill before you come to Robsnot. It is there all alongst a flat strand.

To the eastwardes of the Holmes goeth in a little river called Misdorp.

A little to the westwards of that white cliffe or of Robsnot goeth in also a little River, whereupon lyeth a little towne called Werlom.

Robsnot or Robbeknuyt is a high round hill, upon the toppe where of standeth a church with a sharpe steeple. The land falleth a way to the eastwards from this poynt, with a great bight towards Hartshals. Robsnot.

Thwart of Robsnot it is farre off flatte, fiteene fathome depth is almost three leagues from the shore.

There also thwarte of Robsnot about foure leagues from the shore lyeth a banck of nine fathome, lying alongst the shore.

Thwarte of Robsnot lyeth also a rock about a league from the land.

From Robsnot to Hartshals it is northeast & by east four leagues, there standeth a flat steeple betwixt both, neareste to Robsnot, there you may see the high land of Lackley, alongst over that high land. Hartshals.

Hartshals is a long smoot hill, which is at the east ende somewhat steep.

Thwart of Hartshals lyeth a showlde or stony ground, about an English mile the shoare, upon which (as men saye) there have beene shippes lost, but men doe seldome come neare it,

From Hartshals to the Scawe or Scagen the course is eastnortheast eight leagues. The Scawe.

The land to the eastwards of Hartshals is altogether full of hommocks and sand-hilles, you may see the high land of Lackley also alongst over this land. A longst these coastes men finde none such long plaine hilles, as are Boevenberghen, the Holmes, Hartshals and Robsnot.

Somewhat within the poynt of the Scawe standeth a flat church with a flat steeple, called Old Schagen, when that is southsoutheast from you, then there runneth of from the shoare, a little spitte or showld, there you must edge somewhat off from the shoare, otherwise it is all alongst a steep strand betwixt Hartshals and the Scawe, but you may sounde about this little sand in four and five fathom, so neare as you will.

Upon the east ende or outermost poynte of the Scawe standeth, fire-beakon a like a Cape to see to: when the church is southwest and by west from you, then are the firebeakon and the steeple one in the other, and then you are right thwart of the riffe of the Scawe, which lyeth off from the poynt eastnortheast, and east and by north almost a league into sea.

He that commeth from the westwards, and will sayle alongst by the land, about the Riffe, must especially by verie carefull in using the lead, he may take the soundingh of the shore so neare as he will according as the winde shall be, in eight, seven, sixe, five, four, and also well in three fathome, without doing amisse, he neede not to feare: If he be but carefull in using his lead, with a southwest winde, he may sayl about it in three or four fathome.

When the firebeakon commeth to the east side of the houses of the Scawe, then you come againste the west side of the Riffe, when the firebeakon and the Church are one in the other, then you are on the east side of the Riffe.

When the firebeakon commeth about halfe wayes the houses, neareste the west side, then you are right upon the poynt of the Riffe, what depth that you have then you shall keep it still, without finding it showlder, whether you saile alongst southeast or northwest.

He that commeth from the southwards, and is bound about the Scaw to the westwards may not sound the Riffe because the south side of it is steepe and needle to, it is not good to come nearer to it then in twelve, thirteen, or fourteen fathome, especiaelly by night or darke wether.

For to knowe by certaine markes, when you are cleare of this Riffe, as well over the one side as the other, then marke, comming from the westwards, when the old church and the firebeakon are one in the other, then you come upon the west side of the Riffe: comming frō the southwardes or the eastwardes, when the old Church commeth in the Marcks of the Schawe riffe.

ſouthend of the village, then you come upon the ſouth ſide of the Riffe. When the ſteeple and firebeacon are ſouthweſt and by weſt from you, then they are one in the other, & then you are thwart of that Riffe. When the ſteeple is ſouthweſt and ſouthweſt and by ſouth from you, then you are without, or to the weſtwardes of that Riffe: when the ſteeple or firebeakō is weſtſouthweſt and weſt and by ſouth from you, then you are within the Riffe. This you may ſet by night, by the compaſſe, and ſo may perceiue, whether you be within or without that riffe, when the Firemaker doth fire well. You may anckr on both ſides of the Riffe in ſeven or eight fathom, and have roome enough to ſet ſaele. Some alſo ſay, that men may runne through betwixt the rif fe and the land (If neede require) In two fathom and a half.

Tydes out of the Belt.

Betwixt the Scawe and Maeſtrand or Norwaye it is all ſoft ground, the nearer to Norway the deeper water. When men come out of the Sound, and are in the farewaie, and can gettet no ground in eighteen, twentie, and two & twentie fathome, that is a ſigne that they are about the riffe of the Scawe.

When you come about the Scawe from the weſtwardes, and are bound to the Sound or the Belt you muſt take, an eſpeciall care of the tyde that commeth out of the Belt, which falleth commonly out of the Belt towardes Norwaye, eſpecially when the winde hath blown a while eaſt or northeaſt, it can carrie a ſhipp by night or darke wether under Norwaye, before you ſhould thinke of it, It did happen in the yeare 1605, the three and twentieth of may that a ſhippe comming thwart of the riffe of the Scawe, ſo that the riffe did lye ſouthweſt from her, did driven with calmes in eight houres, untill ſhee came within three leagues neare to the land of northeaſt, about Harmenſhooſt five leagues to the weſtwards of Maelſtrand, ſo great & ſtrong current there did ſhoote alongſt by the riffe towards the northeaſt, although it doth ſeldome happen, that the tyde doth run there ſo ſtrong out, yet nevertheleſſe it behooveth men to be verie carefull, to conſider there of, and to reckon there upon.

From the Scaw to Seabuye the courſe is ſouth and by weſt ſixe leagues, there it is upon the road four and five fathom deep. Betwixt the Scaw and Seabuye lye the ſmall Helmes foure leagues from the Scaw, and two leagues to the northwards of Seabuye. When you will ſaile into the Belt, you muſt leave then on the ſtarboard ſide, going on ſtill ſouth and by weſt untill thwart of ſeabuy, you may alſo ſaile through betwixt the Helmes and the main land unto ſeabuy, if you will, there is at the ſhowldeſt betwixt them 3 fathom water, but about a ſeaboard the Helmes, betwixt the Helmes & the north end of Leſou, it is foure leagues broad, and in the channell ten fathom deep ſoft ground.

The lying of the Helmes, and how men ſhall come to ancker there, and alſo of all depts, ſhowlds and dwale grounds, betwixt the Helmes, the Scau, and Leſou, together with the deſcription of the Iland Leſow and the riffes that lye out there about it is deſcribed before.

Betwixt Leſou and ſeabuy lye many dwale grounds, which are very uneven of three, foure, five & ſixe fathom. the like uneven and ſhowld grounds lye alſo within or to the ſouthwards of ſeabuy, of foure, five and ſixe fathom, but the right channell through betwixt the dwale grounds of Leſou, and the ſhowlds of ſeabuy is ſeven and eight fathom deep.

To the ſouthwards of the ſmall Helms and ſeabuy, neerer to the manie land then leſou, lye alſo ſome uneven dwale grounds, upon which there is no more water then 10, 11, and at ſome places 12 foot. Hee that draweth but 8 or nine foot need not feare of them.

For to ſaile into Aelburger deep.

From ſeabuy to Aelburgher deepe, the courſe is ſouth and by weſt ſeven leagues, upon the north ſide of the haven ſtandeth a flat ſteeple called Hals, in the havens mouth lyeth a buy, & upon the ſouthland ſtand two capes, which you muſt bring one in the other, by them you ſhall finde the buye, the channell lyeth in firſt weſt and by ſout, about a cables length, then you muſt run up northweſt and weſt right unto Hals, and run in by the north ſhore, untill thwart of Hals from the ſouth poynt, of the land ſhooteth off a flat which you muſt avoyd: being thwart of Hals you muſt goe ſouthweſt and by weſt unto the bight, & in the crooked channell you muſt ſhun the north ſhore ſomewhat, and then againe northweſt and by weſt alongſt by the north ſide, unto the ſecond croocked, and then ſouthſouthweſt and afterwards weſtſouthweſt unto the town, in the comming in by the buye, it is two fathom. But for to ſail in there, it is beſt to take a Pilot. By the ſouth ſhore goeth in alſo a little deepe of ſixe and ſeven foot.

The towne Aelburgh lyeth up in the land foure leagues within the river. Alſo there lyeth alongſt this coaſt to the weſtwards ſome bancks, there you muſt ſhunne the land ſomewhat.

When you ſail from the Helmes to Stevenshead, through betwixt the dwale grounds and the flat of Seabuy, you ſhall meet with a ſhowld ground about halfwayes betwixt Stevens-head and Seabuy of 5,6 and ſeven fathom. This ſhowld is called the Swetering, & lyeth about 3 leagues eaſtwards from Aelburgh deep, the channell there betwixt them is about 10 or 12 fathom deep. The Swetering

From Aelburgh deep to Haſelin, the courſe is ſoutheaſt and by eaſt about 20 leagues.

From Aelburgh deep to Stevenshead the courſe is ſoutheaſt and by ſouth about nine leagues, There betwixt them the land lyeth in a great Bay, wherein lye the two little townes Mariacker and Randerſen: Mariacker lyeth from Aelburgh deep ſouth & ſouth and by weſt 4 leagues, and from Stevenshead, five leagues. Betwixt Mariacker and Stevens-head lyeth the River of Randerſen, which runneth up crooked farre into the land, unto the little town Schandelburg. Stevenshead. Mariacker. Randerſen

From Stevenshead to Haſelyn the courſe is eaſtſoutheaſt 13 leagues. Haſelyn is on the outer ſide full of ſhowlds, riffes, and grounds. A larger deſcription of Haſelin and Anout as alſo of all the foule grounds and ſhowlds, lying thereabouts, you ſhall finde in the firſt Demonſtration of this book. Haſelyn

A little to the ſouthwards of Stevenshead lyeth a little town called Oruntbuy, there lye the Chalck-gronds right before the river of Grimſound in a bay a little about the poynt of Stevenshead: that is a ſand two or three foot water, but not far off it, it is ten fathom deepe, you may ſound them in foure fathom. You may ſayle up in to Grimſound, unto Grimſtee, that is a lading-place for Huyes. Oruntbuy. Chalck gronds.

From Stevenshead unto the great Helme the courſe is ſouthſouthweſt about ſixe leagues. The land lies from Stevenshead unto the poynt of Ebeltud ſouthſouthweſt ſeven or eight leagues. Ebeltud is a little Towne lying within the land thwart of the great Helme. Betwixt the great Helme and Iutland it is ſixe and ſeven fathom deepe. Cloſe by Stevenſhead, and the poynt of Ebeltud it is eight, nine, and alſo tenne fathom deepe. The great Helme hath two Riffes, one upon the northeaſt ſide, and the other upon the ſouthweſt ſide. Great Helme

From Stevenſhead to Siero the courſe is ſouthſoutheaſt eight leagues, to the northwards of Syero lyeth a ground looſe from the land, divided into two riffes, which men muſt avoid. Theſe two Riffes lye at ſome places above water.

From the ſoutheaſt poynt of Siero lyeth off a riffe towards Ruſnes, there you may ankor behind it.

From the great Helme unto the Iland Wero, the courſe is n.n.w. and ſ.ſ.o. foure leagues diſtant, there it is 4 and five fathom deep. From Wero there runneth off a ſhowld unto Kyholm, and about Kyholme: and alſo about the little Iland Samps; it is alſo full of ſhowld grounds, which run off unto the great Iland Sampſo. Wero. Kyholm. Samps.

From the great Helm unto the Iland Sampſo it is ſ. w. & n.e. foure or five leagues.

From the north end of the Iland Sampſo there ſhooteth off a little riffe north into the ſea, you muſt ſound cloſe about by it for to come into the road of Sampſo, when you Sampſo.

you will anckor there. It is there in the road tenne fathom deepe, and you shall be there under the *Swan*-grounds sheltred for all winds.

Aerhuyse. From the south end of Ebeltud to Aerhuysen the course is west and by north, and w.n.west five leagues. It is there all showld water of 2 and 3 fathom deep. He that will anckor in the road before Aerhuysen, let him bring the great steeple in the midst betwixt the two other sharp steeples, there is the best ground, and good road in three, foure, and five fathom, so showld as you will. To the southwards of Aerhuysen goeth in the Wedersound betwixt Jutland and Sampso: he that will sayle in there, must bee well acquainted, for it is there all full of riffes and showlds. You may not also use that fareway by night, by reason of all the sands and showlds, and also by day you must be very carefull and circumspect in looking out, and not spare your lead, but you may anckor and have road there every where. When you will saile through the Wedersound, comming off from the great Helme or Ebeltud, you must leave the Iland Tuns and the *Swan*-grounds on the larboard side, running all alongst by the Juttish coast in 2. or 3. fathom, untill past Horsens, or the Iland Endelau, which you may not sayle to, nor come neare from the westwards, by reason of all the grounds which lye before it on the west side. It is a narrow channell betwixt Endelau, and the main land, lying from the Wedersound through the Swan-grounds south, it is on both sides showld, and but a creek for to sayle through.

Wedersound. Or to sayl through the Wederound. Swanne-rounds.

When you come off from the Melversound and will sayle through the Wedersound, it is best to runne alongst by the Juttish side untill thwart of the river of Horsens, then you must edge somewhat off there from the land, and sayle right with the Iland Tons, and so you runne through betwixt the Norther and souther grounds, leaving the Iland Tons on the starboard side. When you are then past Tons, you shall runne out close by the north poynt of *Sampso*, towards the land of Ebeltud, it is altogether one course from Horsens to Tons, and forth to Sampso, and the poynt of Ebeltud, to wit, Northeast and Southeast eight or nine leagues.

Melversound. From Horsens, or that Iland Endelaw unto the Melversound, the course is southsouthwest 6. or 7. leagues. The Melversound is a deep sound of 20. and 25. fathom, very crooked to come into, it goeth in betwixt Fuynen and Jutland, which are both high lands. From the Iland Ebelo unto Melversound the course is s.w. and southwest and by south five great leagues.

Ebelo From the road of Sampso to Ebelo the course is s.s. w. and S. west and by south 5. leagues. From the south end of Sampso to Ebelo the course is southwest and by west foure leagues.

Roems From Sampso to Roems the course is southeast & n.w. 5. leagues. The n. w. coast of Fuynen lyeth s. w. and by west eight leagues. The little Iland Ebelo lyeth off a league from the same, right before Bowens, but you cannot sayle through betwixt the Iland and Fuynen. To the southwards of the Iland lyeth a great rocke under water, betwixt this rock and the Iland is the road before Bouwens in eight and 9. fathom.

Road before Bowens.

Betwixt Syro and Wero lyeth a dangerous riffe, long and broad lying further then halfe way to Syro. When you will runne through betwixt the two foresaid Ilands a weather of Russenesse, you must leave at least the two third parts of the water on the side of Wero, and goe in southsouthwest towards Roems, which is 9. leagues distant.

Haters riffe. The foresaid riffe is called Haters riffe, is on the east side very hard and stony, hee that commeth from Baltsack, he shall run close to the Iland Wero, for to avoyd that riffe, the chanell betwixt the riffe and Wero is not very broad, & 3. fathom, or 3. fathom and a halfe deep. He that commeth from Roems or Rusnes, and will saile through Wero sound, let him bring the great Helm to the east side of Wero, and keep them so standing sailing on so right with them, he shall (so doing) take no hurt of Haters riffe. Betwixt *Syro* and Haters riffe and somewhat more southwardly, the ground is very uneven of 5, 6, 7, 8, and 9. fathom. On the south side of Haters riffe it is good ankoring for northerly winds in 6 and 7. fathom.

Rusnes and Syro lye n.n. e. and S.S.w. about foure leagues asunder.

From the poynt of Rusnes runneth off a little riffe to seawards, but to the eastwards of it betwixt Rusnes and Haselyn, lyeth off a riffe at least two leagues into sea, which lyeth dry at the end, and by it, it is very steep, close alongst by the end it is 8. fathom deep.

From Rusnes to Spro it is *South* and by east eight or nine leagues. Betwixt Rusnes and Spro lyeth Callenburch, which is also a lade place; and about 2. leagues to the southwards of Callenburch lyeth a flat alongst the coast about a league from the shore of 5. fathom depth. Callenburgh.

From the east end of Spro runneth off a little riffe or ledge of rocks, and over against it commeth also a flat shooting off from the land, betwixt them both it is 4 and 5 fathom deep. But behinde or thwart of Spro lyeth Casseur, a faire Haven, where men doe lie at the Kay, and let their goods be carried into the ship.

Casseur. From Spro to Langeland the course is s. e. and by south foure leagues distant. He that commeth alongst to the eastwards of Wero, through the channell betwixt Wero and Haters riffe, and will saile to Roems, let him go on due south and by east, and then he shall runne alongst about an English mile to the eastwards of the Boltsack, and fall with the land a little to the eastwards of Roems: likewise hee that goeth from Roems, or a little to the eastwards of it, on north and by west, hee shall fall betwixt Wero and Haters riffe right in the fareway. Betwixt Roems and Fuynen you may run thorow in two fathom, but with great shipps you cannot goe through there.

From the north end of Fuynen shooteth off a little riffe about an English mile into Sea. About a league east and by north from Roems lyeth a showld of 3, 4, and five fathom; which is steep, and showldeth up so suddenly, that a man, not knowing of it, and findeth it so by the lead, should bee affrighted at it. To the southwards of Roems, in the land of Fuynen lyeth a little towne, for to lade, called Cartemonde. The Haven goeth in from the eastwards, and it is showld on the west side, there lye no buyes in the Havens mouth; there is no more water then five, six, or sometimes seven foot. Cartemonde.

From Roems to Spro, or Knuytshead, the course is south and by east, and southsoutheast 5. leagues. Betwixt Spro and Knuytshead, it is 12 & 13 fathom deep. But betwixt Roems and Spro, it is 10, and 11. fathom deep. Spro

Even about to the southwards of the poynt of Knuytshead in Fuynen lyeth the Haven of Nyburgh, when you are about the poynt, you runne right up to the towne, about northwest, a league, there it is 6. and 7. fathom deep. Men doe lye there with ships to the Kay, and let their goods bee carried in what they will. Nyburgh.

From Knuytshead to Langeland the course is southeast 4. leagues, and then you leave Spro lying on the starboard side. From the s. west end of Spro shooteth off a little riffe which you must avoyd. At the north end of Langeland lye the little Ilands of the Frissell, which are round about very foule. From Knuytshead to the Iland Tassing the course is south foure leagues and then you leave the Frissell lying on the larboard side, and run through betwixt the Frissell and Fuynen. If you be bound to Swineburgh, then go from the Frissell to the southeast end of Fuynen, on southsouth w. and you shall meet a little Iland which you may runne about on both sides of it, Through betwixt Tassing and that little Iland, or you may run alongst by the land of Fuynen until that you come to the little Towne of Swineburgh, which lyeth over against the Iland of Tassing. Over against the poynt of Fuynen lyeth a little Iland called Olms, then you must goe up to the westwards. You may also runne about on the other side of Tassing, and leave the Iland Arr with the foule grounds (which lye betwixt Arr and the southeast end of Fuynen) on the larboard side of you, it is no deeper upon these grounds then six foot. Now when as that you shall come by the little Iland Olms, or by The Frissell. Swineburg. Olms.

the ſ. e. poynt of Fuynen, then you muſt (as before is ſaid) goe up to the weſtwards about the poynt of Fuynen towards Woburgh. Upon the ſouth ſide of theſe foreſayd grounds goeth alſo a Deepe through, weſt, and weſt and by ſouth through betwixt the grounds and the Iland Arr: upon
Koping. this Iland Arr lyeth a little Towne called Koping. This foule ground is 3. leagues long, and that Iland Arr is alſo 3. leagues long, they lye both of them eaſt and weſt, and the
Iland Monk. Munk Iland lyeth at the end of theſe grounds before Woburgh in Fuynen, which hath two riffes, the one ſhooteth off from the ſoutheaſt end eaſt into ſea, the other from the north point northeaſt into the ſea. When you ſaile through to the northwards of theſe grounds, to wit, betwixt Fuynen and theſe grounds, towards Woburgh, you ſhall alſo meet with the foreſayd Munk, with another little Iland or two more, leave them lying on the larboard ſide, and run all along by the land of Fuynen, about weſt and weſt and by n.
Askens. unto the poynt of Askens, which is about five leagues diſtant from the ſoutheaſt poynt.

Litle Ilãds Areu and Foreu. From the eaſt poynt of Askens unto the little Ilands Toreu and Areu, the courſe is weſt and by north, and weſtnorthweſt two leagues, theſe two little Ilands lye one over againſt the other, the one on the ſide of Iutland, and the other on the ſide of Fuynen, men runne through there betwixt 2. riffs which run off one againſt the other, it is there 4 and 5. fathom deep.

Sound of Hadderſleu. To the northwards or weſtwards of Areu lyeth the Sound of Hadderſleu, which lyeth in about weſt and by ſouth, upon it lyeth the towne Hadderſleu two leagues within the land.

From Areu or Toreu to Melverſound the courſe is n. n. w. 5. leagues, which you muſt run into from the ſouthwards
Sound of Coldingẽ. firſt weſtwards unto the ſound of Coldingen, being a broad Sound, which goeth a league into the land, if you will goe through the Melverſound, you muſt leave it on the larboard ſide, and goe up to the eaſtwards unto the towne of Melver, where you come then againe into a crooked channell. The Melverſound goeth out to the northwards with a very crooked channell, and you come out againe upon the broad water to the northwards of Fuynen, as is before ſaid. You
Apenrade may alſo ſail off from Areu into the ſound of Aelſem alongſt ſ. ſ. w. unto Apenrade, and then about behind the Iland of Aelſems untill you come into the ſound of Flensburgh.

The Melverſound and the little Iland Areu lye ſ. ſ. e. and
The Roen n. n. w. one from the other.

To ſaile out of the Ailſen ſound from Areu or the Melverſound, then go from Areu or Toreu unto the Roen eaſt and by ſouth 3. leagues, and then through betwixt the Iland and Fuynen, that is alongſt to the northwards of Roen, for you cannot goe about to the ſouthwards of it. The Roen is a bad and ſhowld riffe ſhooting off from Aelſen, whereunto it is faſt, the outer end of it lyeth dry like Anoutriffe. From the Roen to Arr or Koping the courſe is ſoutheaſt and by e. 5. leagues.

Poles riffe From the ſ. e. end of Aelſt ſhooteth off a great riffe towards Arr called the Poles riffe: you muſt run through betwixt Arr and that riffe, leaving two third parts of the water on the Aelſen ſide, and one third part towards Arr, and runne on ſo with the ſouth end of Langeland, untill that you come againſt Copen.

From Arr to the ſouth end of Langeland, the courſe is ſ. e. and by eaſt, and e. ſ. e. foure leagues. And from the Poles riffe to the ſouth end of Langeland, the courſe is weſt and by ſouth ſix leagues. You may run through betwixt Langeland and Arr to the Northwards and come out againe into the Belt by Nyburgh: from the ſouth end of Langeland to
Taſſing. Taſſing, it is north and by weſt 6. leagues; you may ſail about Taſſing on both ſides, and leave Arr and the foule grounds, lying on the one ſide of you. Upon theſe grounds it it but 6. foot deep.

You may alſo ſaile through betwixt the foreſaid grounds and Fuynen into the ſound of Aelſen, unto the little ilands of
The ſound of Apenrade. Areu and Toreu, as hath been ſaid here before.

From the little Iland Areu to Apenrade the courſe is ſ. ſ. w. five leagues. The ſound of Apenrade is a broad open ſound, upon which lyeth the foreſaid towne of Apenrade.

From the river of Apenrade unto the crooked channell of Sonderburgh, which goeth in betwixt the Iland Aelſen and the maine land, the courſe is eaſt 3. leagues, there you may ſaile through about behind the Iland of Aelſen to Sonderburgh, and then forth into the ſound of Flensburg. It is very narrew and crooked betwixt the Iland and the maine land, but when you are come through the narrow and crooked channell into the ſound of Flensburg, there it is broader and larger.

Sonnd of Flensburg. The ſound of Flensburgh goeth in betwixt Sonderburgh and Holſterland, being a broad ſound. He that will ſaile in there, muſt take very good heed of the Holſters ſide, when you begin to come betwixt the two lands, and run in alongſt by the land of Aelſt, for from Nubell or Holſterland lye off the Chalck grounds halfe wayes the deep. This ſound ly-
Chalck-ground. eth in weſt and by ſouth untill that you come before the river. There lyeth in the rivers mouth a little Iland on the ſtarboard ſide, you muſt run in to the eaſtwards of it, and goe in weſt and by ſouth and weſt, untill you come within the crooked channell of the River or Sound, and then you muſt goe up againe ſ. w. then you ſhall ſee the towne of Flensburgh lye before you.

Of the depths about theſe places, and in what depths men may ſee the land.

In the Pipe, Eyder and Hever, a ſouth and north Moone maketh the higheſt water, the floud commeth there out of the northweſt, and the ebbe out of the ſoutheaſt, and ſo run over the north grounds.

In the deep of Liſt or Silt, a South and north Moone maketh the higheſt water, the flood commeth there out of the northweſt, and falleth very litle alongſt the land, and the ebb to the contrary.

In Knuytſdeep, a ſ. ſ. w. and n. n. e. Moone maketh the higheſt water. The flood commeth here alſo out of the n. w. and falleth but a great quarter tide alongſt the land, and the ebbe to the contrary.

In the Haven of Zuyderzijt, the Grouwe deepe, the Schellingroegh a ſ. ſ. w. and n. n. e. Moone maketh the higheſt water, the floud commeth there alſo out of the n. w. and falleth over the Reefſhorne towards the Juttiſh Ilands, and the ebbe againe to the contrary, off from the land in the n. Sea.

Of the grounds and depths.

The grounds of the Hever and the banckes of the Small deep without Strand and Eyderſtee, lye at leaſt two leagues without the coaſt of the land.

Betwixt Holyland and Ameren or Strand it is tenne or eleven fathom deepe, in that depth you may ſee both the lands, if you climbe up in the ſhrouds. Strand is to bee knowne by the ſteeple of Pielworme, ſtanding upon the ſouth end of the land: Upon the Iland Strand ſtand more Churches and ſteeples, but none ſo good to be knowne as Pielworme.

Ameren is a league and a halfe long, and hath all alongſt low ſandhils growne with ſpiry graſſe.

The Iland Silt you may ſee in ten fathom: Upon this iland (neareſt to the north end) lyeth a high ſteepe red cliffe, on both ſides going ſloping downe; upon the ſouth ſide of the cliffe ſtandeth a flat Church, with a low ſteeple, and to the eaſtwards of it another Church, with a high thick ſteeple called Heydom. The n. end of the iland is called Liſt, and the ſ. end Voortrap.

Courſes and Diſtances.

From the Eyder to Hever the land lyeth n. n. w. and ſ. ſ. e. 5. leagues.

From the Hever, or the ſ. end of Strand to the ſ. end of Ameren n. n. w. about 5. leagues.

Two

T LANDT TE SCHONEN

ZEELANT

Pascaarte van Kol door de Sont tot om Valsterbon als meede de zuÿdelÿxste eÿlanden inde Belt tot ant eÿlant Rugen.

De Gelegentheÿt tusschen de Sont en Coppenhavē in grootbestec

Elbogē ofte Malmuÿen
Drelborgh
Valsterbon
Landskroon
Elsenborgh
Raa
Wittsbay
Krapröe
De Sondt
Kol
Lappesandt
Ween
Southolm
Noort vliet
Zuÿdvliet
Middelgrondt
Draker
Coppenhaven
Het Bosch
Spital
Kroonenburch
Roskild
Roskild fioerd
Haselÿn
Nicoven
Elsenaur
Schoor boÿ
Reef sol
Anak
Klÿck
Batsiebreed
2. Lieues d'Allemaigne twee Duÿtsche mylen
1
2

Les Costes Marines de la Belt, et la Sondt jusques à Valsterbon.

Rugen
Doornhoseh
Straalsundt
MEKE-
Barts
Rokbeytes
LEN-
Roſtick
Ter munde
BVRCH
Ouwevaar
Boechhooek
Poellandt
Wismer
Ter munde
Groote Cruÿspoort
Cleine Cruÿspoort
Lubeck
Ter munde
HOLS
TER
LANDT
Meun
De Tolck
Stech
Stubbekopeng
Geester
Nicopsang
Fallster
Geester Rif
Roode-sandt
LALANDT
Femeren
De Haken
Colberger Heyde
Heiligerhaven
Reutzum
Lange Landt
Kopung
De Steye
Kyl
Duÿtſche mÿlen 15 voor een graadt
Spaanſche mÿlen 17½ voor een graadt
Engel en Fran. mÿlen 20 voor een graadt

Two leagues north from Ameren lyeth Silt, which is about 5. leagues long, and lieth south and by east, and north and by west.

From the north end of *Silt*, called List, unto the south end of Rim or Rem, it is northeast and southwest one great league, Rem is three leagues long, and lyeth most south and north.

From the n. end of Rem, to the s. end of Manu, it is n. e. and s. w. a league and a halfe, you can hardly get sight of it by reason of the grounds, and great showlds, which lye thwart of it to seawards.

Manu and Phanu lye about two leagues one from the other, Manu is almost a league long, and Phanu about 4. leagues long, and lyeth from Phanu Knuytes to Knuytes-deepe, southsoutheast and northnorthwest. This Iland hath also a faire strand, but the north end towards Grouwedeepe is very flat.

From Phanu to Dodenbergh it is about foure leagues, betwixt them lye the Havens of the Growe-deepe and Schelling-kroegh.

From Holyland to the Eyder east and by north, and west and by south 7. leagues.

From Holyland to the outermost buy in the Hever, northeast and southwest 8. leagoes.

You may lye by the outermost buye in the Hever, and see Holyland with cleare sight.

From Holyland to Ameren or Smalle-deepe, northnortheast somewhat easterly, and S. *S.* w. somewhat westerly 10. leagues.

From Holyland to the deepe of Silt or List, n. and by east 19. leagues.

From Holyland to Knuytsdeep or Ryper-deepe, north and n. and by east 25. leagues.

From Holy-land to the Horne or the Dodenbergh n. and s. 32. leagues.

From Knuytsdeepe or the Iland Phanu to the Flye, s. w. and by south 50. leagues.

From the Iland Silt to the Fly northeast and southwest, 46. leagues.

From the Doodenberg or the Horne, to the Haven of Numen or Rinkoper-deepe, North and by West seven or 8 leagues.

From the Rinkopperdeep, or the Haven of Numen to Boevenbergen north and by west about 16. leagues.

From the Dodenberg to Boevenbergen, the land of Jutland lyeth north and by west, and south and by east 17. or 18 leagues.

From Boevenbergen to the Holmes Northnortheast, nine leagues.

From the Holmes to Robsnot or Robbeknuyt northeast 9. leagues.

From Robsnot to Hartshals northeast and by east 4. leagues.

From Hartshals to the Scawe or Schaghen eastnortheast 8. leagues.

From Rinkopper or Numer-deepe to the Fly s. s. w. or a little more westerly about 58. leagues.

From Boevenbergen alongst Jutland, without the grounds unto the Elve or the outermost buy south and by e. about 50. leagues.

From Boevenbergen to Holyland, s. and by east somewhat southerly about 45. leagues.

From Boevenbergen to the Flye or Borneriste s. s. w. about 69. leagues.

From Boevenbergen to the north Forland s. w. and by south 118. or 120. leagues.

From Boevenbergen to the Holmes before Yarmouth s. w. 93. leagues.

From Boevenbergen to Flambrough-Head westsouthwest, 100. leagues.

From Boevenbergen to *Scharbrough* westsouthwest somewhat westerly 100. leagues.

From Boevenbergen to the River of New-Castle or Tynemouth west and by south about 106. leagues

From Bovenbergen to Boecknes west and by north about 106. leagues.

From Boevenbergen to the Naze northwest and by north 24. leagues.

From the Riffe in sixteene fathom to the Fly south and by west 62. or 64. leagues

From the riffe in eighteen fathom to the straît betwixt Callice and Dover s. s. w. about 120. leagues.

From the Holmes to the Naze northwest about 19, or 20. leagues.

From the Holmes to Fleckery northwest and by north, 19. leagues.

From the Holmes to Mardow north 24. leagues

From the Holms to Longsound north and by east 35 or 36. leagues.

From the Holmes to Ferderoer northnortheast 40. leagues

From the *Scawe* to Tynemouth westsouthwest 136. leagu.

From the Scaw to the Naze west 33. leagues.

From the Scaw to Fleckery west and by n. 25. or 26. leag.

From the Scaw to Reperwick west and by n. and n. n. west, 24. leagues

From the Scawe to Mardowe n. w. and by west 20. or 21. leagues

From the Scawe to the Longsound n. w. and by n. or a little more northerly 21. leagues.

From the *Scawe* to Ferderoer n. and by west 23. leagues.

From the *Scawe* to Otturen north and by east, 24. or 25. leagues.

From the Scawe to Maelstrand eastnortheast 21. leagues.

From the Scawe to Nidinck east and by south 15 or 16, leagues.

From the Scawe to Watersbergen east southeast 19. or 20. leagues.

From the Scaw to th' Trendels southeast 8. leagues

From the Scaw, about a seaboard, the Trendels s. e. and by east 8. leagues.

From the *Scawe* to Lesolde, or the north end of the riffe s. s. east 8. leagues.

From the Scaw to Leson southsoutheast 8. leagues.

From Scaw to the Small Helmes south and by west 4. leag.

From the *Scaw* to *Seabuy* south and by west 6. leagues.

From the Helmes to Seabuy 2. leagues.

From Seabuy to Aelburger-deep s. and by w. 7. leagues.

From Aelburger-deepe to Mariacker s. and south and by w. 4. leagues.

From Aelburget-deep to Stevenshead s. e. and by south 9. leagues.

From Aelburger-deep to Haeslin southeast and by east 20. leagues.

From Stevenshead to Haeslin eastsoutheast 13. leagues.

From *Stevenshead* to the great Helme s. s. w. and s. and by w. about 6. leagues.

From Stevenshead to the point of Ebeltud s. s. west 7, or 8. leagues.

From Stevenshead to *Syro* southsoutheast 8. leagues

From the great Helme to Wero southsoutheast 4. leagues

From the great Helme to Sampso southwest 4. leagues.

From the s. end of Ebeltud to Aerhuysen w. and by n. and w. n. west 5. leagues

From the road of *Sampso* to Ebelo s. s. west, and s. and by w. 5. leagues

From the s. end of *Sampso* to the Iland Ebelo, the course is s. west 4. leag.

The n. west coast of Fuynen lyeth southwest and by west 8. leagues

From Endelau to Melversound s. w. 5. leagues.

From Ebelo to Melversound s. s. w. somewhat southerly 6. leagues.

From *Sampso* to Roems s. e. 5. leagues.

From Syro to Rosnes s. s. w. 4. leagues.

From by west Syro to Roems s. s. w. and south and by west 9. leagues.

From Wero to Bultsack s. w. 4. great leagues.

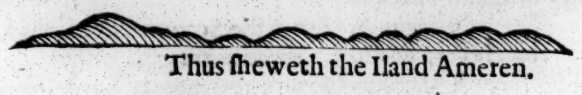
From Wero to Romps south and by east 8. leagues.

From Romps to Knuytshead s. and by east and southsouth e. 5. leagues.

From Knuytſhead to Langeland ſ.e. 4. leagues.
From Knuytſhead to the Iland Taſſing ſouth 4. leagues
From the ſ.e.end of Fuynen to the e.point of Askens, w.and w.and by n. 5. leagues
From the poynt of Askens to the little Ilands of Areu and Toreu, w.and by n,and w.n.w. 2. leagues.
From Areu to Melverſound n.n. w. 2. leagues.
From the poynt of Ruſnes in Zealand, to the Iland Syro, ſ. 8 or 9 leagues.
From Ruſnes to Caſſeur S.S.E. 9 or 10 leagues
From *Spro* to Langeland ſ.e.and by ſ. 4.leagues
From the north end of Langeland to the ſouth end ſouth 8. leagues.
From the ſ.end of Langeland, to the Iland Arr, the courſe n. w.and by w. ſomewhat weſterly 4. leagues.
From the Iland Arr, or Koping, to the Roen, the courſe is n.w.and by w. 5. leagues.
From the Roen, to the little Iland Areu, weſt and by n. 3. leagues.
From Areu to Apenrade S.ſ.w. 5.leagues
From the river of Apenrade to the Strait of Sonderburgh e. 3.leagues.
From *Sonderburgh* to the Sley, ſoutheaſt and by eaſt 4. leagues.
From the ſouth end of Langeland to Femeren, the courſe is ſ.e. and by eaſt.

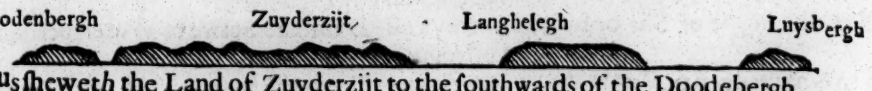
How theſe lands doe ſhew themſelves at Sea.

Thus ſheweth the Land of Eyderſtee to the northwards of the Eyder.



Thus ſheweth the Iland Ameren.

Thus ſheweth it ſelfe the Iland *Silt*, when you ſaile alongſt by it.



Thus ſheweth the Land of Zuyderzijt to the ſouthwards of the Doodebergh.

Thus ſheweth the Land betwixt the Horne or Doodenbergh and the Haven of Numen.

Thus riſeth the Land betwixt the Holmes and the *Scaw*, when you ſaile alongſt by it.

Thus ſheweth the land betwixt Boevenberghen and the Holmes, when you ſayle alongſt by it, three leagues from the Land.

The fourth Demonſtration.

Wherein

Are portrayed how you ſhall ſaile from the Koll in the Sound, and forth through the Droogen, untill you come about Valſterboen, and further the coaſts of Holſten, Meklenburgh, and the ſouthern Ilands of Denmark, from the Belt to the Jelle.

Haeſlin

FRom Coll to the Iland Haeſlin, it is ſouthweſt and by weſt eight leagues, you may ſayle through betwixt Haeſlin and Zealand, untill you come into the Belt: The coaſt of Zealand is a faire ſtrand, but ſomewhat to the weſtwards of Haeſlin, there ſhooteth off a riffe to ſeawards, which you muſt avoyd.

About eaſtſoutheaſt from Haeſlin goeth into the Land a great broad Sound, which without at the entrance of it, is a great league broad, there is good anckoring for a northweſt winde in five or ſix fathom. The Sound divideth it ſelfe within the land into three parts, the firſt or the eaſtermoſt, called Roskildifiourd, goeth up ſouthſoutheaſt unto Roskild, the ſecond, called Iſenvoert, lyeth into the land ſouth, and South and by weſt at leaſt five or ſix leagues, unto Iſickby and Holbeck: within it is at leaſt two leagues broad, and in the middeſt lyeth a great Iland. The third lyeth to Draeckſholme alſo at leaſt five leagues Southweſt, and northeaſt, like the coaſt towards the Belt. The Coaſt of Zealand, betwixt Haeſlin and the Sound is a clean coaſt, you may ſayle alongſt by the Land in ſix or ſeven fathom, but come no nearer to it by night then twelve or thirteene fathom, for at ſome places it is ſteep, & ſhowldeth up ſuddenly. Where that little new Church ſtandeth, thwart of it, it is flat three and foure fathom, and to the weſtwards of that wood which ſtandeth to the weſtwards of Lapſand, you may come in foure fathom by the ſhoare, without taking hurt, but comming neare Lapſand, you muſt keepe further off

Roskildifiourd.
Iſenvoert.

off from the shoare, in seven or eight fathome, or els you should gette behinde the poynte of Lappesand.

Lappesand lieth about an English mile to the northwards of Elsenoore, or the Castel of the Sound, lying on the west side of the saile waye, alongst the coaste of Sealand. For to avoyde Lappesand you must be carefull of these marcks, there standeth a houses to the westwards of the Kings mill, to the westwardes of the Castle of Cronenburgh, keep the Chimney of that house to the westwards of the front of the Kings mill, and then you can take no hurte of Lappesand, then runne alongst by it in six, seven or eight fathome, so long untill that the east end of the Iland Ween cometh a little without the castle of the Sound, keepe that so standingh, and sayle so in sixe or seven fathom somewhat close alongst by the castle: you may plainly see lying throug the water al that can hurt you.

If you will shift roads out of the Sound, and ancker behinde Lappesand, then sayle thwart of the foresayd Kings house called the Caux or Kings mill, so that it doe stande about south or south and by west or south & by east from you, ancker there in six, seven or eight fathom, there it is good lying out of the current and sand ground: but if you wil anckor in twelve, thirteen or fourteen fathome, there it is soft ground, & there goeth a strong current with southerly or southeast windes, but you lye there better, in more roome, for to sayle inwardes againe, if it should happen that the winde did sodenly shift out to the northwest. It happened once to one of my acquaintance, that he ad anckered somewhat to the eastwards of the Kings-mille, in sixe or seven fathome and the winde did shift in the night to the northwest, when they weighed their ancker the shippe fel towards the land, and before they coule get the ship about before the winde, they did runne in three fathom over the poynte of Lappesand.

From Coll to Elsenure or the Sounde the course is south east, and southeast and by sout four or five leagues. About halfe wayes betwixt Coll and Elsenburgh lye the Swyneboeden, which are some foule rocks, and suncken rockes, which lye of to seawards a good wayes from the land, But when you sayle towardes the Sound comming from Col, then keep the Iland Ween hidden behinde the Castle Cronenbureh, and then you cannot sayl foul of the foresayd Swynebodē, when that you reckon that you are past them, then runne in amidst the channell, for to avoyde Lappesand, or els if you bring the east end of ween then again right without the castle, or keepe in seven or eight fathom from the Sealands side, you cannot take hurte of Lappesand, when you are come within the castle, you may ancker where you please. The shippes doe commonly ancker al alongst by the land until to the southwards of Ellenure, there it is fifteene and sixteene fathome deepe, but with a southeast winde it is badde lying there.

Towards the Iland Ween lyeth a banck of eight or nine fathom it is better lying there, but it is somewhat farre from the land.

When you wil sail out the Sound towards Coll, and are come to the end of Lappesand, then goe northwest and by west for to avoide the Swyneboden, untill that Coll be northnortheast from you then goe boldly northwest and by north, or northnorthwest, according as the winde shall be, for with a northeast winde, you must runne out northnorthwest verie close alongst by Col, for to sayl a weather of the Riffes of Anout and Lesou.

For to sayle to Elleboghe or Malmuyen, and Lanscroone.

IF you wil sail out of the Sound to Elboghe or malmuyen, goe from Ween southeast & southeast and by south, & then you shall see the steeple or the towne lying before you, sayle towards it, in that farewaye, it is most seven or eight fathome deepe: when you come within the southolmes, it wil be five or sixe fathom deep, it doth shoulde up sodenly, from the seven fathome to five, but before the towne it is showlder water, you may anker there in three, four or five fathome if you will, you may lye also at the end of the Head, in three fathome, there it is good lying, but with a northwest winde it is a bad roade, for it bloweth there open in.

If you will runne ou againe to the southwards of the Southolmes towards Fasterborne or Steden, you must take heede of the Southolmes, which are foule round about. From the north end shooteth off a riffe a great wayes: Upō the east side, at the south end, it lyeth verie farre off should, there lyeth also the Northvliet, that is a ledge of rocks under water, but you may perceive it through the water; you shall leave it on the Southolmes side, to wete, on the starboard side of you: but the Southvliet, which lyeth thwart of old Falsterborne, you shall leave on the larboard side, & so runne through betwixt then, it is in that farewaye at the shouldest four fathome deep. When you come off from Malmuyen, and that the steeple of Coppenhaven come to the south end of the southolmes, then you are past the Northvliet. When you saile thus there through, you must be verie carefull to avoyde these foresayd groundes. You may runne out also alongst by the strand of Schoonē, and leave both the Northvliet and Southvliet lying on the starboard side: you may sound that strand in four & five fathome, as also the riffe of Fasterborne.

North-vliet.

South-vliet.

He that will sayl into Landscroone, must know that there liet a shoulde before the havens mouth, and must runne in aboute to the southwardes of it: there standeth a little church on the north side, by the water side and a Gentlemans house somewhat farther winhin the land, bring that church over the house, & then you are cleare of the should, then saile in right with the poynt, and ancker in three fathome.

Landscroone.

To the northwards of old Faster-Borne goet in a deepe, called Hull or Hulwater, it is a deepe haven for ordinarie ships, which goet in must northeast in three or foure fathom, you may sound it in alongst by the footstrand of old Fasterborne in three fathom, leaving old Fasterborne on the starboard side, it is there large & broad enough.

Hulwater.

How men shall saile out of the Sound, through the Showldes or grounds, & into the Reefshol.

He that will sayle out of the Sounde towardes the Shouldes or Groundes let him goe on south and by east, or hee may sound alongst by the wood, in five or sixe fathome and then the shall not sayle misse of the Norther buye, for it lyeth in five or six fathom, on the north end of the Middle ground, to the eastwardes of the buye it is seven fathom deep, but in the right farewaye thwarte of this buye it is nine or tenne fathom deep: the markes of this buye are, when that end of the wood is westsouthwest from you, then you are thwarte of the norther buye, and there standeth then a flat steeple, a pretie wayes to the southwards of that wood: there cometh also three hommocks to the north side of the town, these are all marks of the norther buye.

Norther buy.

From the Norther buye to the middlebuye the course is south and by east. When you come by the Middle buye, then cometh the southermost mill on to the southwardes of the towne of Coppenhaven, & the flat steeple commeth within a handspikes lengt unto the sharpe steeple, that are the markes of the Middle buye, or second buye in the showldes or grounds, it is there eight and nine fathome deepe.

Middle buy.

From the Middle buye to the third, & forth to the buye upon Casper Caniel, the course is south and by east. When the white castle cometh over the sharpe steeple, that are the markes of the fourth buye, or the buye upon the Casper Caniell, the third lyeth at the south end of the Middleground, it is not there verie broade, but steepe on bot sides, the Deepe thereaboutes is seven or eight fathome. If you must turne to windewards there, you must cast about, so soone as it doth beginne to showlde, as wel on the one side as on the other.

Third buye.

The fourth buye lyeth on the north end of Draecker upon

Buye upon Casper Caniel.

Fhiſer. upon eth flat, over againſt it lyeth a rock above water, called the Fisher, eaſt by north from the buye, there you may well ound the ſoutholme, for it is there showld water. Betwixt the third and this fourth buye commeth running out a channell from Copenhaven, which men doe call Caſper Caniell, or the Kingsdeep.

From the fourth buye or Caſper Caniell, to Draker riffe, the courſe is ſouth, and ſouth and by eaſt: the land of Draecker you may ſound in three, foure, or foure fathome and a half.

Riff of Draker. The Riffe of Draecker lyeth a good wayes without Draker, it lyeth off halfe league eaſt into ſea. The markes of the buye upon Draker-riffe are theſe. When the ſteeple of Copenhaven commeth to the ſouthwards of Draker to the wood, then you are thwart of the buye. The showldeſt water that you ſhall finde betwixt this buye upon Draker-riffe, and the foreſaid fourth buye, is five fathom leſſe two foot. For to ſail by night through the ſhowlds or grounds, go from the Iland Ween ſouth and ſouth & by weſt, ſo long untill that you come thwart of the point of the wood in 4 fathom, then keep ſomewhat off from the shore, and go on ſoutheaſt A by eaſt, untill that you come in 7 fadom, and then forth ſouthſoutheaſt, untill you be over the Middle-Ground, the firſt or northermoſt buye, as is beforeſaid, lyeth in five or ſixe fathom, but you may wel go over to the weſtwards of it, in three or foure fathom, keepe then ſomewhat off, untill that you come in eight, nine, or ten and eleven fathom, and ſail then on ſouth unto Caſper Caniell, there it will be by little and little showlder, to wit, about 8 fathom Thwart of Draker it is uneven for to ſound, the one eaſt five and the other foure fathom, but go your courſe, except you knew that you were neerer the one shore of Draker, or the Southolmes, then the other. Without Draker it will be againe 6 and 7 fathom deep.

For to ſaile into Rifsholl or Copenhaven, comming from the northwards out of the ſound; runne alongſt ſomewhat to the weſtwards of the Norther buye, for to avoyd the plate, or Middle ground, which lyeth to the weſtwardes of the buyes in the sholds, which upõ the n. end is not deeper then 12 foote, and on the ſouth end eight, nine, and at ſome places ten foot deep, all hard ſtony & rocky ground, keepe the ſounding of the shore on the weſt ſide in two, three, or foure fathom, ſo deep as you plaſe, untill you com before Copenhaven, on that ſide you can take no hurt, it is there broad and wide, and lyeth in ſouth & by weſt; in the middſt betwixt the shore and the Middle-ground, it is 5, 6, and 7 fathom deep. If you should turne to windwardes there, the come not neerer the middle-ground then in foure fathom, but the weſt shore you may runne to by your lead, as you plaſe.

From the north end of the Iland Draecker runneth off a riffe to the northwards, upon the point of that riffe lyeth a

Buye in the Reefsholl. buye, which men do call the buye in the Reefsholl, leave that on the larboard ſide, and run in, untill you come before the towne, & and ankor there. If you come from the ſouthwards, and will ſaile unto Reefsholl, then run alongſt to the eaſtwards of the foreſaid fourth buy (which men do call the buye upon Caſper Caniel) then looſe up preſently about by it, and go on n. w. into the Kings-deep, unto the buye in Reefsholl, which lye one from the other due northweſt, and ſoutheaſt: you shall then alſo ſee eight out a head, in the n. w. within the land a flat ſteeple right over a great houſe or Hoſpital, that ſtandeth cloſe upon the ſea-ſide, keepe them ſo one in the other, and ſaile right in with them, and ſo you shall runne in right amiddſt the cannell, it is there in the fareweye five, ſixe, ſeven, & eight fathom deep. This Kingsdeepe is ſomewhat uneven of ground, therefore be carefull in uſing of the lead, and come not too neere the north ſide; that is the Middle-ground, which is vere foule and rocky: from the ſ shore (about halfe wayes betwixt the two foreſaid buys) it lyeth off ſomewhat showld, ſo that you shall have at one eaſt five or ſixe, and the other but 3 fathom.

Marckes of the buye in the Reefhol. When you come by the buye in the Reefsholl, which lyeth upon the point of the norther riffe of Draker, leave that on the larboard ſide, and runne on ſouth about by it, unto Copenhavẽ. The marckes of this buye are theſe: there lyeth a round hommock or great rock about half a league within the land, when that is right eaſt from you, then it cometh righ with a flat ſteeple which ſtands about a league within the land, then you are even thwart of the buye, or point of the foreſayd riffe. Theſe marcks will ſerve at times when the buye lieth not there. A little to the northwards of that buye lye the great ships which tarry for wind in 5 or 6 fathom, there is good anker ground.

From the buye upon Draker-riff unto Kuyck the courſe Kuyck. is ſ.w, five great leagues, but unto the riff of Faſterborn, or Steden, it is ſouth & ſouth & by weſt 5 leagues, in the fareway betwixt Draker and Faſterborn it is 6, 7, and 8 fathom deep, but between Faſterborne and Steden, 10 or 12 & 13 fathom, but by Steden deepeſt.

Under Steden you may ancker as well to the ſouthwards Roade der Steden. of it, for northerly, as to the northwards for ſoutherly windes. If you will ancker for northerly winds, then run in betwixt Steden and Meun, a good wayes into the bay, ſo that the ſteep poynt of Steden lye about northnortheaſt from you, ancker there in eight or nine fathom, and you shall lye land-lock for north and northweſt winds.

But if you will ancker for ſouth or ſouthweſt winde, then ancker to the northwardes of Steden, ſo that the ſoutheaſt poynt be ſouth and by eaſt, or ſouthſoutheaſt, and the n. w. point northweſt or weſtnorthweſt frõ you, there it is good lying in ſeven fathom, the ground is there ſmall white and black ſand. If you wil ſet ſayle from thence to the showlds or grounds, then go not more northerly then northeaſt, ſo long untill that you come by the riffe of Draker, then run about by it in five fathom.

To the northwards of Steden the coaſt of Zealand goeth in with a great bay into Kuyck, it is there all to the weſtwards showld water or five, ſixe & ſeven fathom, & good ancker ground, ſo that you may ancker every where there abouts.

Marks the riffe Faſterborne. The riffe of Faſterborne lieth off ſouthweſt to Seawards a league & a halfe. It is a fowle ſtony & rocky riffe upon the end of it lyeth a buye in foure fathom. you may run about by it upon your lead in five fathom with ſmall or ships of little draughts. Men doe hold for a mark of this riffe that when the ſteeple of Faſterborn and the caſtle come one in the other, that then they are thwart of the poynt of the riffe. He that cometh from the northwards, and will ſayle about Faſterborne with a northerly or northeaſt wind and that he will come ſomewhat neere about the riffe, and commeth in five or ſixe fathom he muſt be very quick in uſing the lead. When old Falſterborne church commeth halfewayes to the caſtle and the church of Faſterborne, then beginneth to come the worſt and showldeſt of the riff, that laſteth until that old Faſterborn church cometh to the eaſtwards of the houſes of Faſterborne, before that you are not paſt the riffe. If you showld luffe up ſooner about by it, you showld run in great danger with a ship of great draugt, you shall have (comming againſt the riffe) the one caſt 4 or five and then preſently three fathom upon it all hard ſtony ground. Therefore it is beſt with a ſhip that draweth 12 or 14 foote, to come no neerer this riffe then in 6 or 7 fathom.

If (when you come from the eaſtwards) you will ſayle about Faſterborne, & come alongſt the shore with a north eaſtwind in ſixe or ſeven fathom, and Falſterborne is about north, or northnortheaſt from you, then it showldeth up very faſt in two fathom, or two fathom and a halfe. Therfore keepe you further off from the shore in 10 or 12 fathom, ſo long until that the caſtle bee northeaſt, or north eaſt & by north from you: or that old Falſterborne church come halfe way to the caſtle of Falſterborn & Falſterborn church, then you cannot ſaile upon the riff from the eaſtwards, but running about by it in five fathom, then you muſt be very carefull in uſing your lead. But if you will come neere the riff in foure or five fathom, when old Falſterborn church commeth to the eaſt end Falſterborn, you shall run in great danger for to come on ground. When you come within the riffe, you may run alongſt

alongſt by the coaſt of Schoonen in 4 fathom without taking hurt.

To the ſouthwards of the Sound of Flensburgh, lye yet three Sounds or rivers, where great ſhips may goe into, to wit, the Sley, Nylhofvoert, and the Sound of Kiel, the land lyeth off from Flensburgh to Kiel ſouthſoutheaſt or ſomewhat more eaſterly ſixe leagues.

the Sley. From Sonderburgh to the Sley the courſe is ſoutheaſt and by eaſt 4 leagues, that is, a broad deepe ſound, lying in firſt about weſt, and when you are within it, then it runneth in about ſouthweſt and by weſt paſt Sleeſwyke, there alſo come out many great ſhips. The town Gottorpe lyeth alſo upon this river.

Kuyet.

Betwixt the Sleye and Kiel lyeth Nylhofvoert, upon it lyeth a little towne called Eeckelenfoort.

Nylhofvoert. Road der Steden.

The ſound of Kiel is a broad Sound, which lyeth in about ſouthweſt, there you may go in alſo with great ſhips. From Kiel to the weſt end of Femeren it is eaſt & by north about eight leagues.

Kiel.

Femeren. From the Poles riff to Femeren (over the Coelbergher Heyd) the courſe is eaſtſoutheaſt 13 or 14 leagues, but from the ſouth end of Langeland unto Femeren it is ſoutheaſt & by eaſt 7 or 8 leagues. The channell betwixt Femeren and Laland is 5 and 6 fathom deepe, you may ſayle round about Femeren, there it is all ſhowld ground. Betwixt Femeren and Holſterland, you may run through in 8 or 10 foot, there lyeth a little town, called Heyligher haven, where you may ancker with ſhips of ſmall draughts for to lade wheat or barley. From the Iland Femeren to Geſter-rif the courſe is eaſt and by north ten leagues. But from Femeren to the Trave of Lubeck ſ. ſ. w. ten leagues: there goeth in a good Deep for great ſhippes, it is deep upon the banck 12 foot water.

Heyligher haven.

There is alſo a great bay and a good haven, where men may lye ſafe for all winds, except the northeaſt and northnortheaſt winds. From the Trave of Lubeck to Geſter-rif the courſe is northeaſt and ſouthweſt about nineteine leagues.

From the Trave of Lubeck to Wiſmer-deep the courſe is firſt northeaſt and by eaſt, and then eaſtnortheaſt, there goeth in a faire deep for all ſorts of ſhips.

Deepe of Wiſmer. For to ſayle in at the deep of Wiſmer, bring the ſteeple upon the ſouth land ſouth from you, and ſayle ſo in untill that the ſteeple ſtanding upon the eaſtland, by that eaſtermoſt houſe, cometh to the five or ſixe houſes, by theſe houſes ſtand ſome trees together, from that eaſtland runneth off a litle riffe, lying off northweſt & by north from it, when the ſteeple cometh to thoſe houſes, then goe in ſouth ſoutheaſt, in that deepe is twelve foot water. In the Summer there lye two buyes in the havens mouth, the one upon the taile of the ſand that ſhooteth off from the eaſtland, and the other upon the ſhowld ground, you muſt run in betwixt them. This deep of Wiſmer lyeth from Femeren ſouth and by eaſt diſtant abour ſeven or eight leagues, but from Wiſmer to Geſter riffe the courſe is northnortheaſt twelve or thirteene leagues.

Roſtick. About ſouth from Geſter riffe lyeth Roſtick, there goeth in alſo a good deepe of ten foot, it is there very flat, you may ſound it in on both ſides with the ſounding poll. Wiſmer and Roſtick lye about eight or nine leagues aſunder.

Robbenes. Somewhat to the eaſtwards of Roſtick lieth a high land called Robbeneſſe, from it ſhooteth off a great riffe or ſhowlde to ſeawards, towards Geſter riffe, it is betwixt Geſter riffe and that ſhowlde not deeper them twelve or thirteene fathome. If you come neareſt to Geſter riffe, then it doth ſhowlde up ſoddenly, but if you come neareſt this ſhowlde, then it ſhowldeth by little and little. Geſter riffe as hath been before ſayd, is a ſhowld riffe, & runneth off at leaſt 3 leagues into ſea.

Barts. A little to the eaſtwards of this foreſayd ſhowld lyeth Barts, there goeth in a deepe of 6 foote, at the weſt poynt goeth off a riffe, which men muſt avoyde.

the Ielle. Three or four leagues to the eaſtwards of Barts goeth in the Ielle, there men doe goe in to Meſond, or Straelſound there is no more then ſixe foot water. In the Ielle lye tree buyes, which you muſt leave all on the ſtarboard ſide, being paſt them eaſtwards, up unto the beacon upon the Iell, you muſt looſe up about by it, and ſayle to the middle plate, which you muſt leave alſo on the ſtarboard ſide, and then ſ. & by e. unto Straelſound. Within the mouth of the deep, it is 12 and 14 foot deep.

Golverſound. The Iland Langheland is about eight leagues long, and lyeth ſouth & north, to the eaſtwards, over againſt it lyeth the Golverſound, lying in to the northwards of Laland, all alongſt up unto Neſtvelt and Wordenborgh and commeth into the Greenſound, and into the Wolvegat, and again into the Eaſt ſea: Before the Golverſound lye three little Ilands, the one at the poynt of Laland, which is called Wedero, and is alſo faſt to it with a riff, ſo that men cannot ſayl throegh there betwixt them; to the northwards of it men doe runne into the Golverſound, leaving that Iland on the ſtarboard ſide: the other two lye to the northwards of the foreſayd Iland of Wedero, the one is called Arnis, and the other Ooms. Ooms is a little playne Iland, But Arnis is the greateſt, which lyeth neareſt to Zealand, & is full of trees. From the Iland Ooms, lieth off a riffe ſouthweſt to ſeawards, which is a great league long, and upon the end flatte, which men may runne over by the lead. When you will ſayl into the Golverſound you muſt leave theſe two Ilands lying on the larboard ſide. The Iland Laland hath upon the weſt poynt over againſt the ſouth end of Langeland, a riffe or Hooke, lying off from Laland at leaſt half wayes over the Belt: for to avoyde that, you muſt runne alongſt within an Engliſh mile to the eaſtwards of Langheland; or when that you leave the two third partes of the water on Lalands ſide, and the other third part on the ſide of Langheland, you ſhal not come too neare it. When you come from the ſouthwards, & are bound in to the Belt, and that then the ſteeple of Maſcou, which ſtandeth upon Laland commeth to ſtand northeaſt and by eaſt from you, then you are paſt that riffe, and lyeth to the ſouthwardes of you: It is here in this channell betwixt Laland and the ſouth end of Langhelandt, five, ſixe, and ſeven fathom deep.

VVedero. Arnis. Ooms. Riffe on Laland.

From the ſ. end of Langheland to Femeren the courſe is ſ. e. and ſ. e. and by eaſt diſtant ſeven leagues.

Redſand.

When as you come off from Langeland and are paſt the riffe or Hooke of Laland, then the ſouth coaſt of Laland lieth eaſt & weſt: alongſt by it lyeth a ſand, which is called the Red-ſand, & lyeth alongſt until before Colverſound which runneth in betwixt Laland and Geſter.

Aelholme Roobuye.

To the northwards of this ſand is a rode of 14, 16, and 18 foot water, before the little townes of Aelholm and Roobuy, where men do lade nuts and Barley.

Betwixt Laland and Geſter, thwart of this redde ſand (as hath been ſayd) runneth in the Golverſound, which men may run into, & come out again in to the Belt, but in this ſound or channel there is little depth, there lyeth a ſtone banck within thwart over the channel. The little town Nicoppen lieth upon the Iland Falſter a league within Geſter. From Geſter ſhooteth of Geſter riffe, at leaſt three leagues into ſea, which is a ſhowld riffe.

Nicoppen Geſter-rif. Bout.

To the eaſtwards of Geſter riff lyeth an Iland called Bout it is there abouts all ſhowld water, to wete, three and four fathome.

To the eaſtwards of Bout goeth in the Green ſound, by the little towne Stuybekuype, & commeth out again into the Belt to the northwards of Laland: the Green ſound lieth in about weſt and weſt and by north in three fathom, there lieth a ſhowld on the larboardt ſide of the mouth of the Sound, called the Tolck, which men muſt avoyde: you muſt goe in to the eaſtwards of it, you may lead it in alongſt by the land of Meun, in 14 or 15 foot, that foreſayd town Stuybekuype lyeth about a league within the mouth of the channell.

Greenſound. Tolck. Stuybekuyp.

From Geſter rif to Meun, the courſe is northnortheaſt 8 leagues: but from Bout to Meun it is northeaſt about ſeven leagues.

Meun. From the Golverſound to Meun, the land lyeth in a bay, you may anckor rhere for a northeaſt, north, northweſt, and weſt winde, in five and ſix fathom.

He that commeth out of the Sound, and is bound to the ſouthwards of Meun, may com ſo near Meun as he will, and looſe up to the weſtwards by the point, and anckor where he pleaſe, in five or ſix fathom. On the north ſide of Meun you may alſo anckor in 6 fathom, behinde a little riffe that ſhooteth off from the north point, for an eaſt, ſ. ſ. w. & weſt wind, it is there all over flat, and good ground.

From Meun to Steden, the courſe is northweſt and by north 4 leagues, betwixt them both goeth in the Wolf-ſound, or Wolvegat, that runneth paſt Werdenborgh and Neſtveld through the Golverſound out into the Belt.

Meun & Faſterborne lye north & by eaſt, and ſouth and by weſt 5 leagues aſunder.

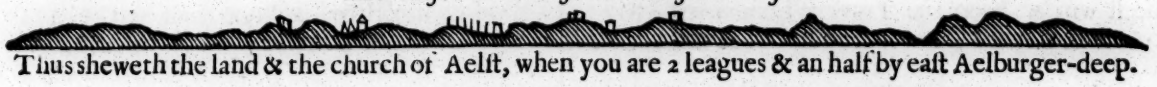
Of the ſtreames on theſe coaſts.

Through the Sound and the ſhowldes or groundes, the ſtreame runneth commonly with the winde, but the moſt part of the time to the northwards, before the comming of a hard eaſt winde, or when it hath blowne out of the eaſt, then the ſtreames runnes ſtill out the northwards.

Courſes and Diſtances.

From Coll to Elſeneur, the courſe is ſoutheaſt, & ſoutheaſt and by ſouth 4 or 5 leagues.
From Lapſand to Ween ſouthſoutheaſt 3 leagues.
From Elſeneure to the norther buye in the ſhowldes or grounds, ſouth and by eaſt 6 leag.
From Elſenuer to Landſcroon eaſt ſoutheaſt 4 leag.
From Ween to Malmuyen ſ.e. and ſ.e. and by ſouth 6 leag.
From Malmuyen to Reefſholme weſt 5 leag.
From Malmuyen to Steden ſouth ſ.w. 8 leagues.
From the buy upon Draker-riff to Kuyck ſ.w. 5 great leag.
From the buye upon Draker-riff to Steden, the courſe is ſouth and by weſt 5 great leag.
From the Buye upon Draker-riff to the buye upon Falſter-bornes-riffe, the courſe is ſouth 5 leag.
From the ſouth end of Langeland to Femeren, the courſe is ſoutheaſt & by eaſt 7 or 8 leagues.
From the Fools-riffe, lying on the Iland Aelſt to Femeren, the courſe is e. ſ. e. 13 or 14 leagues.
From the Sleye to the Kiel ſoutheaſt 4 leagues.
From Kiel to Femeren, the courſe is eaſt & by north 8 leagues.
From Femeren to the Trave of Lubeck ſouthſouthweſt 9 or 10 leagues.
From the Trave of Lubeck to Wiſmer-deepe, the courſe is firſt northeaſt & by north, and then eaſtnortheaſt in all 9 leagues.
From Roſtick to Robbenes, the courſe is northeaſt 5 leag.
From Robbeneſſe to Doornboſch northeaſt and by eaſt 7 leagues.
From Femeren to Wiſmerdeep, ſouth & by eaſt 7 leag.
From Femeren to Roſtick, e. ſ. e. 8 or 9 leagues.
From Femeren to Geſter-riffe eaſt & by north 9 leag.
From the Trave of Lubeck to Geſter-riffe northeaſt 19 lea.
From Wiſmerdeep to Geſter-riffe northnortheaſt 12 or 13 leagues.
From Roſtick to Geſter-riffe the courſe is north 7 or 8 lea.
From Geſter-riffe to Dorneboſh eaſt 9 leagues.
From Geſter to Meun northeaſt 7 leagues.
From Meun to Steden northweſt and by n. 4 leagues.
From Meun to Faſterborne north and by eaſt 5 leagues.
From Meun to the buy upon Faſterborn-riffe north 4 or 5 l.

How theſe Lands doe ſhew themſelves at ſea.



Thus sheweth the land & the church of Aelſt, when you are 2 leagues & an half by eaſt Aelburger-deep.

Thus sheweth Zealand, when you come from Anout, and will ſaile toward the Sound.

Thus sheweth the Land of Schoonen off from Col unto Falſterborne, when you ſaile through the showlds or grounds.

When you ſaile to Lubeck, alongſt betwixt the Land of Cruyſoort & Holſterland, then it sheweth it ſelf on bot ſides thus.

Thus sheweth the Coaſt of Mekelenburgh, betwixt Cruyſoort & dornebosh, or the Ielle, when you ſaile alonſt by it, a league without the Land.

The fifth Demonſtration,

Where in

Are ſhewed the coaſts of Norway, betwixt Akerſound and Koll.

Akerſound Graswyke

FRom the Sifters to the Iland of Akerſound, the courſe is weſt & by north 4 leagues, betwixt them lyeth the Graſwycke, within the Siſters, lying from Farder e.n.e. about 7 leagues. When you will ſaile in there, you muſt leave the ſharp point on the larboard ſide, within lyeth a round rock, which you may ſail about on both ſides, thwart of it is good ankerground. North from this rock lyeth a great Bay, fit for ſhips to lye in, that tarrie for a winde: within lyeth alſo a round rock. Men do run in along by the weſt land, which lyeth in firſt north, & about the Iland north northeaſt, they leave the Iland on ſtarboard ſide, and run in n.n.w. by the weſt land. To the eaſtwards of Graſwike, alſo betwixt the Siſters & Akerſound lyeth Shiphill, that is a Haven where men lade Spars & fat wares.

The Iland Akerſound men may ſail round about it, to the northwards of it lyeth a great Bay or Sound, lying in farre within the Land, called Ottrom. Ottrom

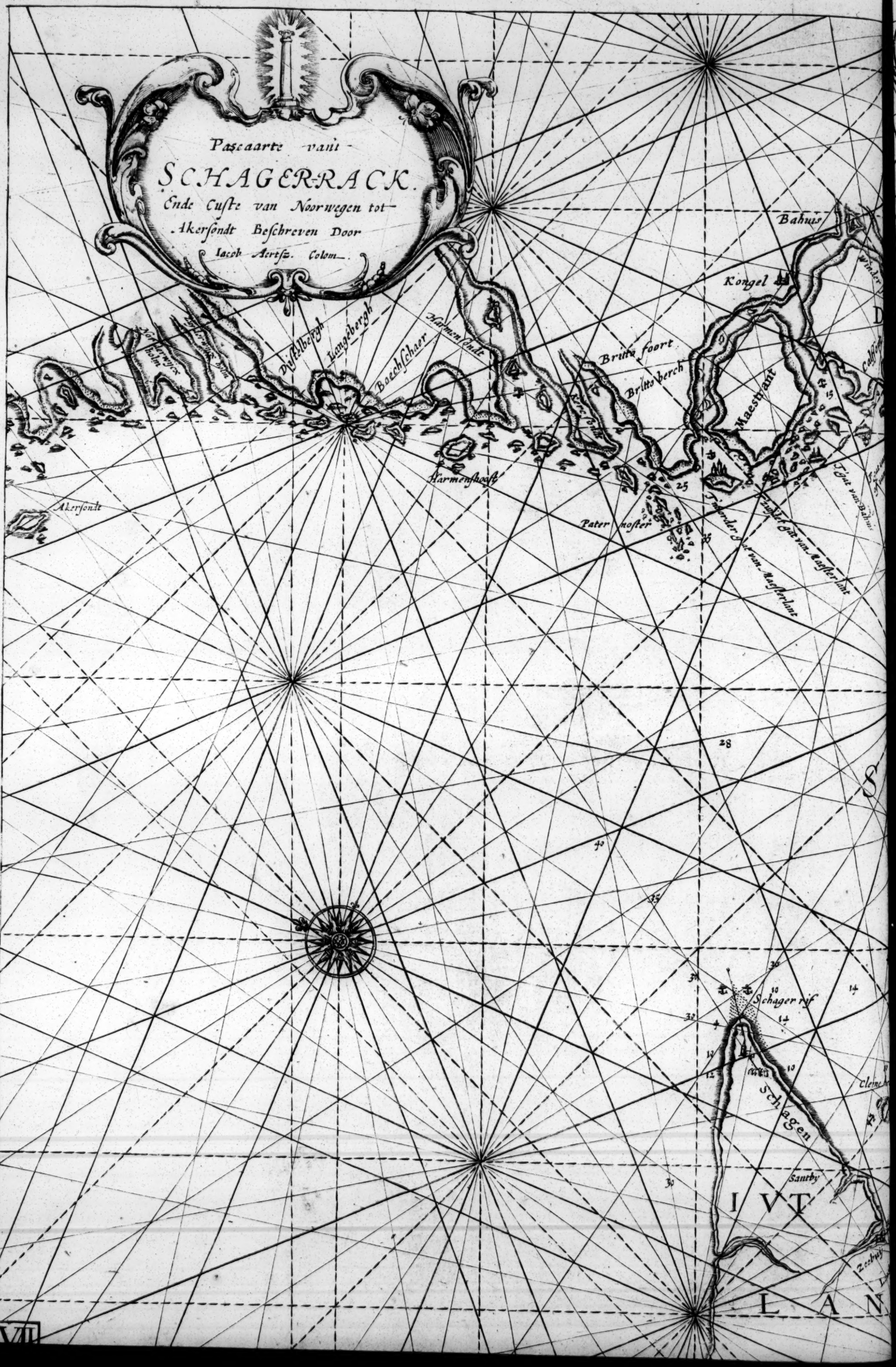
To the ſouthwards of Ottrom lye Northerwixholm and Southerwixholm, 2 great Ilands, in a great ſound, which lyeth far & deep within the land, upon it (far within the land) lye many little townes, as Oldburgh, Oldwat, Alleroes, & Dragens, from thence cometh much fat ware. Southerwixholm & the Iland Akerſound, lye nortweſt & by weſt, and ſoutheaſt & by eaſt 5 leagues aſunder. Northerwixholm. Southerwixholm.

From

Paseaarte vant

SCHAGER-RACK.

Ende Custe van Noorwegen tot Akersondt Beschreven Door Iacob Aertss. Colom.



Carte Marine des Akersondt et Schage jusques á Kol.

Duytsche mylen 15 voor een graadt
Engel en Fran. mylen 20 voor een graadt
Spaansche mylen 17½ voor een graadt
Lieneg d'Allemaigne 12 en un degre
Lieues Angl. et Franc. 20 en un degre
Lieues d'Espaigne 17½ en un degre

t'Landt van Noord ooften

HA LANT

SHAGERRACK

DE BELT

Helmsta
Laholm
Engelholm
Bolstadt
Katteraf
Turko
Valckenburgh
Haber
Tuyla
Swedero
Kraprop
Kol
Waersbergen
Consback
Bunhuys
Vlot
Nyny
Anout
Riff van Anout
Luys gronden
Riff
Haselin
De Trindel
Lesou
Vlack
Vlack
Vlack
Vlack

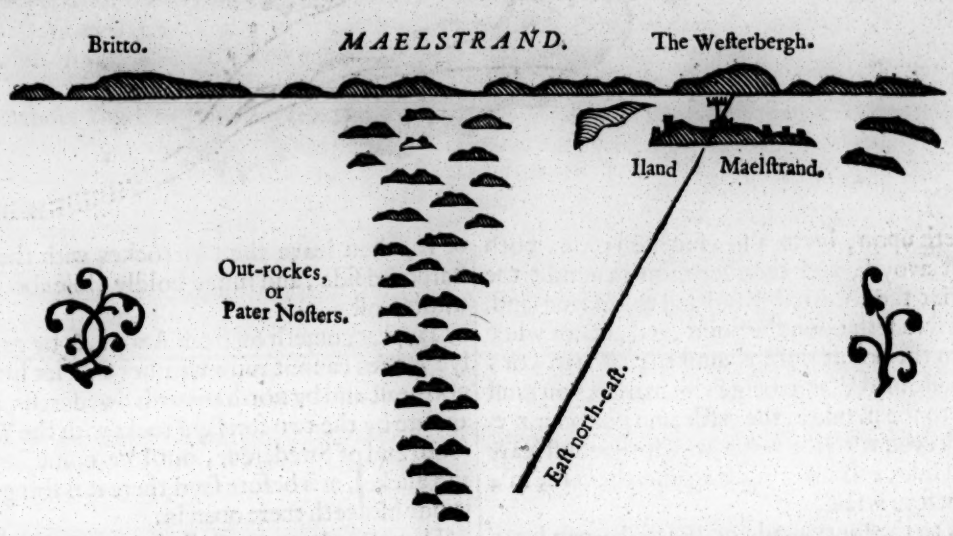
Fro
ſ.ſ.e.f
leagu
ſound
Land
Ha

Pater-noſters.

T
to wi
ſoun
rock
lyeth
Scaw
nort
to, w
righ
he m
eaſtu
in fi
grea
maſt
deth
abou
ding
weſt
char
beſt
lyet
ſout
nort
abo
ſhall
an
out
ſhoa
A
a ro
but
to t
the
unc
roc
car
gro
Calffound to
lea
alo
det
the
W
no
is g
the
Ni

From Souther-wixholme to Harmanſhead, the courſe is ſ.ſ.e. five leagues, betwixt them lyeth Boechſchaer, but two leagues to the ſouthwards of Harmanſound lyeth Kerckſound, which is a great river, which lyeth in farr within the Land.

Harmanſhead & the weſt-end of the rockes (which men do call the Paternoſters) lye north & by weſt & ſouth & by eaſt 5 leagues aſunder, to the ſouthwardes of them men do ſaile into Maelſtrand. Upon the coaſt betwixt Farder and Maelſtrand, is almoſt every where good ankerground in 35 and 40 fathom.



Pater-noſters. THe Pater-noſters are a great rane of Rockes, which lye farre off to ſeawards from the Coaſt, behinde thē, to wit, on the ſouth ſide, goeth in, within the land a broade ſound, upon the ſouth ſide of it lyeth a great high round rock or hill, called Britto. To the ſouthwards of that ſound lyeth the Iland of Maelſtrand. He that commeth from the Scaw, and deſired to ſail to Maelſtrand, let him go on eaſt-northeaſt, & then he ſhall get ſight of the foreſaid hill Britto, which he ſhall ſet eaſt northeaſt from him, and ſaile ſo in right with it, until that he commeth by the Pater-noſters, he muſt leave on the larboard ſide, and ſail alongſt by them eaſtnortheaſt, and eaſt and by north, and then he ſhall runne in ſight of the Iland Maelſtrand, upon which ſtandeth a great ſtony beacon, or Warlock, where ſomtimes ſtandeth a maſt with a barrell upon it, and ſometimes alſo there ſtandeth none. You may run in on both ſides the Iland, either about to the northwards, or to the ſouthwards of it, according as ſhall be beſt fitting for the wind: If the winde be at weſt or ſouthweſt, then you may beſt run in at the norther channell, or if the winde be at ſouth, or ſoutheaſt, then it is beſt to runne at the ſouther channell. The norther channel lyeth in by the ſouth ſide moſt eaſt and by ſouth, and eaſt-ſoutheaſt, but the ſouther channell eaſt and eaſt and by north. When you come within the Iland, you may ſaile about by it, untill you come before the towne, which you ſhall ſee then lying before you. Men doe anckor there with an anckor to ſeawards out a head, and make faſt a cable out a ſtearne on the kaye, lying ſo wit the ſtearne to the ſhoare.

About the middeſt, going in at the ſouther channel, lyeth a rock above water, which you may ſail about on both ſides, but within that rock lieth a ſuncken rock under water, and to the ſouthwardes of it alſo a great rock, but a little further out then the orher. There lyeth alſo a ſuncken rock under water by the Iland on the north ſide of the foreſayd rock which lyeth above water, which men muſt be very carefull to take heed of. There is every where good anker ground. From thence you may ſail through within the rocks Calffound to Calf-ſound, Bahouſe and Nilus.

Calf-ſound lyeth diſtant from Maelſtrand about foure leagues. For to ſail in there out of the ſea, you muſt runne alongſt to the ſouthwards of a great rock, whereupon ſtandeth a Warder. On the ſouth ſide of the Havens-mouth there are great rocks, but on the north ſide all ſmall rocks. When you come within the rocks about the poynt of the north land, there you may anckor in 15 or 16 fathom, there is good ancker-ground. From Calffound you may run up to the ſouthwards, through within the rocks unto the river of Nilus.

Four leagues ſouthſoutheaſt from Calf-ſound, lyeth the Iland Winneu to the ſouthwards of it goeth in the channell of Nilus or Gottenbergh, which is a large & broad ſound, lying in n.n.e. in 8, 9, and 10 fathom, you muſt leave Winneu on the larboard ſide, and runne in betwixt the point of the main land, called Kalderhead, and the Iland little Denmarck, and then in alongſt by the main land on the ſouth-ſide untill paſt Elsburgh to Gottenburgh, it is there all Gottenburgh. cleane and cleare without any danger that might hurt you.

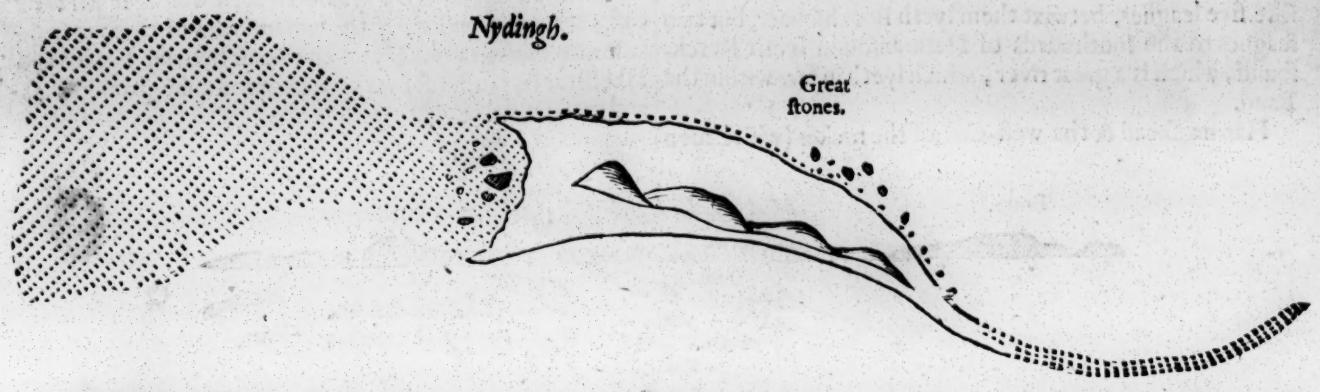
You may alſo ſayle into the northwards of Winneu, then you muſt leave Winneu, and alſo ſome long rocks on the ſtarboard ſide, and the rough Iland, or little Denmarck, on the larboard ſide, and then in alongſt by the poynt of the mayn land, on the ſouth ſide, as is before ſaid.

Two leagues ſouthſoutheaſt from Winno lie Maelſound & Conſback: Maleſound is a rough Iland, which you may Maleſound. ſayle round about in ſeven or eight fathom, under it is alſo good road. Two cables length weſtnorthweſt from Maleſound, lyeth a ſuncken rock under water, and alſo one even with the water, a bow ſhot from the land, wherupon ſtandeth a Warder.

Eaſtnortheaſt from Maleſound lyeth the haven of Conſ- Conſbach. back, there ſtand 2 great Warders, each upon a rock cloſe to the land, betwixt them lyeth in the haven, it is a fayre haven, ten fathom deep, & good ancker-ground, when you come about the low point you ſhal ſee Conſback lye to the northwards of you.

From Maleſound ſouthweſt and ſouthweſt and by weſt, a great league to ſeawards, lyeth the fowle and dangerous rock Nyng or Nijding: The land upon Nyng is about a Nyding. halfe league long. The riffe on the north end runnes till about a league on the land northeaſt, and is a halfe league broad, wholy ruffe, with ſharpe ſtones. Upon ſome places 8, 7, 5, and 4 foot water. The taile, which ſhooteth ſoutherly downe, is narrouw, and runneth from the land northeaſt about 2 leagues: There upon is 5, 4, and 3 foot water. A league and a half without Nynger-Riffe, northweſt, men may ſtay upon 6 and 7 fathom. You may ſaile through betwixt Nyding and Maleſound, or the mayn land, but it is there all ſhallow water. Upon Nyding is a fire-beacon, whereupon they make fire every night.

From Nyding to Waterſ bergen the courſe is ſ.e. 5 lea- Monſter-ſound. gues, betwixt them (three leagues to the ſouthwards of Maleſound) lyeth Monſterſound, that is a river or Sound, which runneth up into the land, upon it lye ſome towns as Vlymenes, Horn, & Goſewaer. From Monſterſound 3 leagues to the ſouthwardes, lyeth Watersbergen. For to ſayl in there, you muſt run in by the eaſt land. At the poynt of the Iland which lyeth on the northweſt ſide before the haven, lyeth a rock under water, and from the poynt where



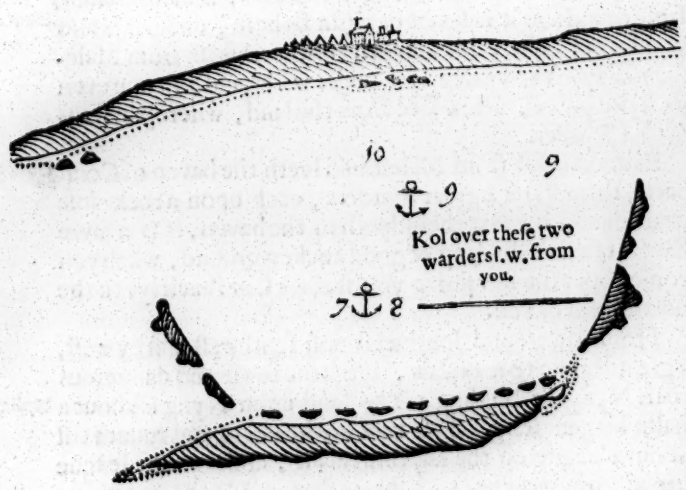
the caſtle ſtandeth upon, lyeth alſo a ſuncken rock, both which you muſt avoyd, and therefore run in amidſt the channell, betwixt the foreſayd Iland and the mayne land, where the caſtle ſtandeth upon the point, and anckor when you come within the poynt right againſt the caſtle in 4 or 5 fathom. For to ſaile into Watersbergen by markes, you muſt bring Old boey to the n. ſide of the caſtle, and goe on n.n e. there lyeth a rock even with the water, which you muſt leave on the ſtarboard ſide, and ankor right againſt the caſtle in 4 or 5 fathom, as before is ſaid.

Valckenburgh. Two leagues to the ſouthwards of Watersbergen lyeth the river of Valckenburgh. On the north ſide of the Riversmouth lyeth an Iland, called Muruptinge, and 3 leagues to the ſoutwards of it, lyeth an Iland, called Tullo, betwixt that Iland and Valckenburgh, within the land, lyeth a high hill, called Haver, being white to ſee to, as if it were ſandy Land: ſea faring men doe name it yong Coll, becauſe of the likeneſſe of height & faſhion, which it hath like Col, and ſometimes it is miſtaken for coll.

Tullo.

Helmſtee. Three leagues eaſtwards from Tullo, lyeth Helmſtee upon a river, but there can go in no ſhipps, but onely huyes and boates.

Laholm. Two leagues ſouthwards from Helmſtee lyeth the little towne, or little caſtle, called Laholm, there goeth alſo a little river into the Land. A league weſtwardes from Laholme lyeth Boſtadt, theſe places lye in a great bay.



Swedereur.

Three leagues to the weſtwardes of Boſtadt lyeth the Iland Swedereur, you may runne in behind it at both ſides, for to anckor from the northwardes, it is there large and broade for to go in: but from the north end of Swedereur ſhooteth off a little ledge of rocks, you muſt runne alongſt to the northwards of the rocks, that lye at the north end of Swedero, leaving them on the ſtarboard ſide, and ancker behinde the Iland, betwixt the greate and little rockes in ſeven fathom, thwarte of the little white church of Turcko, ſo that the greate rock with the two warders at the ſouth end be ſouthweſt from you, and Col ſtand over the foreſayd Rock, there it is beſt lying, and there you are landlockt for all winds. If you wil run out again to the ſouthwards of it, then leave the two rockes with the warders on the ſtarboard ſide, and runne boldly cloſe about by them, towards Coll.

He that cometh off from Anout, & by reaſon of ſouther-lye windes cannot run a weather Col, let him goe from Col northeaſt and by north towards Swedereur, and runne cloſe aboute by the two foreſayd rocks with the Warders, at the ſouth end of Swedereur, until he come behind the Iland, and ancker, as is before ſayd, there it is ſoft ground. A north winde bloweth there open in.

From Swedereur to Coll the courſe is ſouthweſt and by ſouth, betwixt both lyeth a greate baye, upon which lyeth that little towne Engelholme, where men alſo may ride. Coll.

For to ſayle from the Scaw to Coll.

From the Riffe of the Scawe to the Iland Leſou the courſe is ſouthſoutheaſt, but the poynte of the Riffe & the Trindel lye due ſoutheaſt and northweſt eight leagues aſunder.

The Iland Leſou is compaſſed round abouth with foule Dwaelgrounds, riffes and ſands, that lie off. From the ſoutheaſtend where the church ſtands upon, lieth off ſuch a great riffe or ſhould from the ſhoare, that aboute 3 leagues from the land to the ſouthwards of it, it is not deeper then two fathome, there under it you may make rode for a ſouth ſoutheaſt winde. Likewiſe from the ſouthweſt poynt, lyeth off ſuch a great ſhowlde, that when the foreſayd flatt church is eaſt, & eaſtnortheaſt from you, you cannot come neare the land within 3 leagues. But the north end you may come ſo near, that you may have rode under it for a ſoutherlye & ſ. e. winde, in three, four, five, ſixe and ſeven fathome, the church being about ſouth from you. Leſou.

From the northeaſt end lyeth off alſo a riffe right towardes the Trindel, which you may ſound about, when you ſayle through betwixt Leſou and the Trindell, which is the nearer Leſou the ſhowlder, and the nearer the Trindell the deeper. Cloſe by the Trindell on the Inner ſide or weſt ſide, it is deep five and ſix fathome. Riffe of Leſou.

The Trindell is a ſtony ſand-plate, three cornerd, and ſomewhat long of faſhion, it is no more then four foot deep. and about two Akers of land great, and lyeth moſt alongſt the fareway, lyng from the northeaſt end of Leſou northeaſt, or a little more eaſterly about 3 leagues diſtant. On the northeaſt ſide of the Trindell lyeth allways a great buy, whereby you may know it a farre off. Trindell.

When the point of the Scaw is northweſt and by weſt about a league from you, there it is ſeventeen and eighteene fathom deep, but when the poynt lyeth weſt, and weſt and by ſouth from you, about a league, there it is four or five and thirty fathom deep. Depths about the Scaw.

But he that commeth ſayling about the Scaw, & runneth without the riffe in tenne, eleven, or twelve fathom, and goeth on from thence ſoutheaſt, or ſouthſoutheaſt, keepeth a long while ſtill, the depth of fifteen & ſixteen fathom, at leaſt the ſpace of three leagues, before he gette twenty, or five & twenty fathom. When as that you beginne to get againe ſhowlder water of tenne, eight, ſeven, & ſix fathom, that goeth then through within the Trindell. When that you ſhall meete with the foreſaide depth of the ſhowlding,

and

and saile yet further on southsoutheast, then you must be very carefull to use your lead often, because of the foresaide showld, which lyeth off from the northeast end of Lesou, towards the Trindell, you may runne over it (as is said) in five, foure, and so well (in the narrowe) in three fathome. When the northeast point of Lesou beginneth to come s. s. west from you, then you com on against the riff or showld, but when the point is southwest from you, then you are over the showldest of the riffe. When the west end of Lesou is southwest, and the church southwest and by south from you, then you are about thwart of the buye of the Trindell.

Four leagues south & by west from the Scaw lye the smal-
Helmes. Helmes, not far from the shoare, that are three little Ilands, the southermost the Iuttes doe call the Deyen or the Dee, the midlemost Holmes, & the northermost Grasholme, by them lyeth yet another little Iland. You may saile through between the southermost and the middlemost, but then you must runne nearest the southermost, through betwixt them is four fathom water.

Under the Helmes is good road for southeast, southsoutheast & southerly windes. He that will go to anckor under them, comming from the Scawe, must runne to the strand in three fathom, and runne so alongst by it, in betweene the strand and the Helmes, untill that he be within the rockes, there he may anckor, or also well runne through alongst by the footstrand in 3 fathom. When the rockes of the Helms are east, & east & by north from you, there is the roade in 4 fathom & 4 fathō & a half. The best road for to ly under the Helms with small shipps, is betwixt the southermost & midle most little Iland, somwhat neaer the main land then the Ilands: but for great shipps it is best to lye by the Grasholme.

He that will not lye so farr within the Helmes, may also ancker farther out under the high land of Lacklou, so that the Helms be southeast from him, in four, five, sixe, or seven fathome, there it is also verie good lying for south & southsoutheast windes, in clean ground, of small white and black sand.

Betwixte the Scawe and the Helmes in the farewaye it is deep eighteen, sixteene and fifteene fathome. Betwixt the Helmes and the mayne land, there is at the showldest three fathom water. When you come from the northwardes through betwixt them, untill you come thwart of the south end of the rockes, there runneth off a little riffe from the Helmes towards the strand, where the greate stones lye called Bourser riffe, but keeping in three fathome, you cannot take hurte of that riffe. You may well run out again by that south end towards Zeabuy. So that you may sayl round about the Helmes with shippes that are not of very great draughts.

Betwixt the Helmes and Lesou, a good wayes from the Helmes, it is 20 & 25 fathom deep, soft ground, but one league from the Helms lye some rocks or showlds, where of you must take heed.

To the westwardes of Lesou lye the Dwaelgrounds, to
Dwael-grounds. the northwards of the foresaid riff, that lyeth off from the s. w. point of Lesou, where the flat church standeth upon, which are very uneven of three, four, five, and six fathom deep. Of these and more other showlds & uneven groundes betwixt Lesou and Zeabuy, reade the description of the nother part of the Belt.

About a league northnorthwest from the west end of Le-
Rockes betwixt Lesou and the Holms sou, s. s. e. somwhat southerly from the point of the Scaw, & eastsoutheast from the little Helmes, there lye two or three little low Ilands or rocks, a little above water; betwixt these Holmkens, and the Helms, it is twenty fathom, but betwixt these Holmkens and Lesou five fathom deep, to the northwards of them is farre flat, four and five fathom deepe sandground.

If you will sayl by night off from the Helmes or from the high land of Lacklie towards Lesou with a southwest or southsouthw. winde, then sayle no nearer because of these little Ilands and showlds then southeast and by east, with that course you shall run over those shoulds or flats (lying to the northwards from the foresayde Holmkens) in six or seven fathom, afterwards it wil be deeper again, nine, ten and twelve fathome, go then on eastsoutheast so long untill that the east end of Lesou be southwest from you. When that east end beginneth to come south and by west from you, then you come on against that flat, or rif, which shooteth of from the northeast end of Lesou towards the Trindell. It doth showld up from 14, 12, and 10 fathome, unto 8, 6, and 4, and also to 3 fathome. If you be somewhat near to Lesou, the three fathome lasteth a good whiles, and then it will be again deeper, four, six, tenne and fifteene fathome, and then verie deep. When that foresayd northeast end of Lesou is s. w. from you, then you are cleare of that flat. The Helmes and the Trindel lie east & by south and west and by north seven leagues asunder.

When you come from the Scaw with a southwest or w. southwest winde, and that you will sail through within the Trindel, that is, betwixt the Trindel and Lesou, it is best that you goe such a course, that you may make your wayes good southeast and by south, and then you shall run alongst about the middst of the channel, through betwixt the Trindel, and the foresayd low rockes, (which lie northnorthwest off from the north point of Lesou, & southsoutheast from the point of the Rif of the Scaw.) At the deepest in this farewaye, betwixt the Scaw and Lesou, it is 23 and 24 fathom, being past over that, you shall come against a banck of eight, seven, and six, and also into five fathom, and then you shall be about due west, or a little more northerly or southerly from the buye upon the Trindel. Afterwards it wil be again deeper, if you be in the right farewaye, to wete, 7, 8, 10, and also well twelve fathome.

For to saile within the Trindell.

For not to sayl within the rif, or the northeast poynt of Lesou, it is good to run then somwhat more easterly, to wete, southeast, or southeast and by east, untill you come against the foresayde riff that lyeth off from the northeast poynt of Lesou, which you may sound, and so runne about by it in five, four, and also three fathom. When the northeast poynt of Lesou, (that is the poynt with hommocks) is south & by west from you, then you come against the rif, & when that poynt is s. s. w. from you, thē you are right thwart of the rif, but when the poynt is s. w. from you, then you shall be past and cleare of the rif. Being gotten aboute it towardes Anoute, it will be deepe thirtie, five and thirtie and also fortie fathom.

He that cometh by night about the Trindel, must not spare his lead, on the outer side, that is on the east side of the Trindle you may not come no nearer it by night, then nyne or tenne fathome, and then you shall not be farre off from it.

When you saile close alongst without the Trindell in cleare weather, and that you stande without board, upon the bendes of the shippe with your feet by the water, then you can even see Lesou. If that then in cleare weather standing so without the ship, you cannot see Lesou, when you are about thwart of the Trindle then you runne farre enough alongst without the Trindle.

The Triudle and the riffe of Anout lie northwest and southeast, or as some say southsoutheast and northnorthwest nine or tenne leagues a sunder. Betwixt Anoute and Lesou in the right farewaye it is five & twentie fathom deep, but to the westwards of it, to wit, right betwixt the Ilands Anout & Lesou it is all showld water, of seven and eight fathome, you may saile there over these flats and showlds through betwixt Anout and Lesou into the Belt.

Depths betwixt Anout & Lesou

Anout is upon the west side verie foule, and farre off to seawards from it, lye manie uneven dwaelgrounds of two three and four fathome.

When you saile with a southwest or westerly winde from Lesou to Anout, and runne over the flat of Lesou in three or four fathome, you neede not saile on more easterly then southeast and by east, although it be by night, you shall with such winde and course run cleare enough of Anout. When as that you reckon to have the length of the riffe, goe then on southsoutheast, and south and by east, for to sail a wether of Coll. But by day or when you can see about you not more leewardly then southsoutheast. When you

saile off from the foresaid pointe of Lesou to Anout with a southwest or westsouthwest winde, as is before said, and make reckoning to come by night by Anout, then you can not doe better, as to goe eight, tenne or twelve glasses. (according as the winde shall blow fresh) on southsoutheast, untill you come against the shoulding of Anout, and looke for the daye, that running not to far to leewards off the poynt of the riffe, you may the better gette a weather of Col. Lickewise, when you come off from Col with a southwest or southerly winde, and runne about a halfe league alongst without Coll, you neede not also saile more northerly, then northwest and by north, that goeth also a good wayes alongst to leewards of Anout riffe, and so forth towards Lesou. But when you come with a northeast winde out of the Sound, or from Col, you must runne out close by Coll, if you will sail a weather of the riffe of Anout.

He that must lye by or turne to windwardes betwixt Lesou and Anout, and is bound for the Sound, let him keepe himselfe on the west side of the faire waie, when he is a league or two a weather of Lesou, upon those foresaid flattes, of four, fixe, and seven fathome, when as that he beginneth to come within a league or two of Anout, there it will be again deeper, but uneven, the one cast at least a fathome more or lesse then the other, when that you shall begin to get that uneven ground of sixteene, twentie, and also thirtie fathom, then is Anout yet about three leagues south from you; comming neare Anout it will be verie uneven, at one time thirtie, and then soone againe fifteene, 17, and also 20 fathome.

If you will saile towards Lesou with a southwest winde, comming about the riffe of Anout from the sonthwardes, then goe not on more westerly then northwest. If you goe on more westerly, eyther westnorthwest, or northwest and by west, then you shall come soon upon the Flatte betwixt Anout and Lesou, and shall finde first tenne, and then by little and little six, five and four fathome. When that with the northwest waye you beginne to gette Lesou in sight, then it lyeth high, that is, the west ende about westnorthwest, and the northeast ende, where the riffe lyeth off, about northnorthwest from you. When you come so neere to Lesou, that you can see the east ende out of the toppe in cleare weather, about northwest from you, there it is thirtie, and four and thirtie fathome deepe, that lasteth so long until that the foresayd east poynte be southwest from you, but when that pointe is southsouthwest from you, then you are right thwart or upon the poynte or showldest of the riff, then you shall runne over there in three, four, 5 fathom: when that foresaid poynt commeth to be south and by west from you, then you are past and cleare of the riffe.

Depths by Lesou.

Betwixt Anoute and Waersberghen in the farewaye it is deepe one and twentie, two and twentie, and three and twentie fathome, betwixt them lyeth also a banck of ten, twelve, fourteene and sixteene fathom. When the nortermost high hill of Waersberghen is northeast from you, then the poynte of Anoutes riffe is southwest from you: but when that hill is northeast and by east from you, and that you be somewhat nearer Norwaye then the riffe, then you are upon that banck. When you come upon it by night, then goe on south, or south and by east, according as the winde shall bee, & then you shall get againe deeper water. There lyeth yet another banck betwixt the riffe of Anout & Valckenburgh, which lyeth alongst unto Haland, which at some places is not deeper then eight fathome. When the poynte of the riffe is aboute south and by east, and the high land of Anoute is aboute south and by west from you four leagues, there lyeth also a banck of fourteen or fifteene fathome.

Depths thwart of Anout.

The riffe of Anout lyeth off from the northeast poynt of Anout about eastnortheast a league and half into sea, and at the end lyeth drye aboue water, which is exceeding steepe and needle too. The north side (when you come from the northwardes or the westwardes) you may sound, and runne alongst by it, in seventeene or eighteene fathome: but comming from the southwards, you cannot (in no wise) come neare it by your lead, for on the sout side close to the Riff, it is thirtie, and five and thirtie fathome deepe.

Riffe of Anout.

On the north side of the riffe, you may ancker at many places, in tenne, eleven, twelve & thirteene fathom. When you ancker in eleven, twelue or thirteene fathome, so that the Firebeacon be southeast and by south, and the high land of Anout, which is the west end, aboute southwest and by west from you, then lyeth the outermost end of the riffe east & by north from you, there is verie good lying for eastsoutheast, southeast, south, and southsouthwest windes. When you set sayle from thence, and are bound to the Sounde, then you may boldly without feare (either by night or darke weather) sail alongst by the riffe in sixteen, seventeene or eighteene fathome, untill thwart of the ende, keeping in such depth you can take no hurte of it. Comming by the ende, it is four and twentie and five and twentie fathom deepe, but when you come about the poynte, and beginne to goe on southsoutheast, then you have presently close to the riffe no grounde in thirtie and five and thirtie fathom. The Riffe of Anout and Col lye one from the other southeast and northwest about tenne leagues asunder. In cleare weather you may easily see from belowe both Coll and Anout, when you are betwixt them both. For to sayle from the riffe to the Sound with a westsouthwest winde, you neede not sayle on nearer with a ship that sayleth wel, then southsoutheast, with that course you shall sail farre enough a weather of Col. Comming neare the coast of Zealand, that you may sound in fourteene, twelve, tenne and eight fathome deepe.

Betwixt Anout and Zealand, in the farewaye it is eightteene and twentie fathome deepe. Betwixt Anout and Zealand fifteen and sixteen fathom, but in the farewaye betwixt Anout and Coll, it is deepe twentie, one and twentie, two & twentie, and three and twentie fathome. To the southwards of the westwardes of it, it is showlder, to wete, nineteene, eighteene, and also wel fourteene, thirteene, and 12 fathome, according as you come to the westwards, but towardes Norwaye it is deeper, to wete, four and twentie, five and twentie, eight and twentie and also thirtie fathome, wherby you may perceive whether you be neareſt the Norwayside to the eastward of the fareway or to the westward.

About northwest from Col four leagues, and southeast and by east from Anout, there lyeth a banck of nine, tenne and twelve fathom.

Divers bancks.

About east and by south from Anout, so far that you cannot well see it from beneath, but may see it out of the top, and northwest from Coll, there lyeth also a banck of sixteene fathom, grosse sand ground, as if it were ground of the riffe.

South and by east about eight leagues from the poynt of Anouts riffe, southeast and by south from the south end of Anout, and west and by north from Coll about five leagues, lye the Lowsegroundes, upon which is no more then eight foot water. He that commeth off from Anout riffe, being bound for the Sound, and goeth not more southerly then southsoutheast, shall not sayle within these grounds, but with a south & by east course he should fall with them. He that cometh out of the Sound, being bound towards Anout, should (with a west northeweſt course off from the Sound) also sayle within the same, therefore he that is bound with a bare winde from Anout to the Sound, or from the Sound to Anout, must be carefull thereof.

Lowse. ground.

The Iland Haselin lieth from Anouts riffe south tenne leagues distant, and from Coll southwest and by west eight leagues, which is on the north side or outer side verie foule, full off riffes and shoulds, but on the south side or inner side towards Zealand it is indifferent clean, so that you may well have roade there. From the east end of Haselin lieth off a Riffe northnortheast and northeast and by north towardes Norwaye three leagues into sea, untill within a league near to the Lowsegrounds: he that must turne to windewardes here, with southerlye or northerlye windes, and runneth somewhat far over westwardes into the bay, must be verie carefull, and take heede there of, because it is there abouts verie uneven of depths, & uneven grounds, and therefore you cannot well com neare then by your lead, but the Coast of

Hasels.

of Zealand you may come neare in six or seven fathom by your lead.

If it should happen that you must lye by, in the Scawe reach in long darke nights or mistie weather, then observe these directions following: If you be betwixt the Scawe & Lesou, then you may keepe your self well bouldly to the southwards or westwards, but use the lead much: about the Helmes and the Scawe you may come neare the shoare into ten, twelve or fifteene fathom, before you need te cast about. If you be by your reckoning thwart of Lesou, you may come neare it in ten or fifteen fathom: But if you be betwixt Lesou and Anout, there you may runne upon the flats in five, six, seven, eight or tenne fathom. If you be betwixt Anout Haselin and Coll, there you may runne to the south shoare in fifteene and sixteene fathome, but betwixt Haselin and Zealand in ten or twelve fathom.

It is best in anie wise to keepe you rather to the south shoare, then to the Norwaye side, but you must be verie careful of your lead, and use it verie much.

Of the tydes & course of the streames.

In the Scawe reach, betwixt Maelstrand and Watersberghen the streame goeth most still with the winde and it ripppleth there sometimes in some places, as if there were shoulds, this you may finde in calme weather, if you let a lead sinke to the ground.

By the Scawe the streame commeth most commonly falling out at the Belt towardes the land of Northeast, especially when the winde hath blown a while out of the east or northeast, and runneth alongst by the Norwaye to the northwardes.

Men comming of from Anout, that will saile by night with a westerly winde, towardes the Scawe: or comming from the westwardes about the Scaw, with a southerly wind, being bound for the Sound, might soon be carrid with this current under Norway, a good whiles before they should thincke or feare of it. Of this current read further in the first booke.

In this farewaie betwixt the Scawe and the Sound, and then from the Sound untill aboute Fasterborne, it is exceeding necessarie, that a Pilot (or he to whom the charge is committed) be verie carefull in looking out, and be verie vigilant, that he may avide the multitude of daungers, of shoulds and riffes lying there: the skilfullest and best experienced of all hath there enough to doe.

Courses and Distances.

From Akersound to Southerwyksholme southeast and by east 5 leagues.
From Southerwyksholme to Harmanshead southsoutheast 4 or 5 leagues.
From Harmanshead to the west end of the Paternosters 5 leagues.
From the west ende of the Paternosters to the Maelstrand the course is eastnortheast 2 leagues.
From Maelstrand to Winneu southeast 5 leagues.
From Winneu to Maelsound southsoutheast about 2 leag.
From Maelsound to Waersberghen southsoutheast 5 leag.
From Waersbergen to Tuylo southeast 5 leagues.
From Tuylo to Laholme southeast and by east 5 leagues.
From Laholme to the poynte of Turko behinde Swedereur the course is westsouthwest 3 leagues.
From Turcko to Enghelholme s.e. 4 leagues.
From Enghelholme to Coll west 4 great leagues.
From Maelstrand to Nyding s.s.e. 8 or 9 leagues.
From Maelsound to Nyding the course is southwest and southwest and by west a league and an half.
From Nyding to Waersberghen southeast about 5 leagues
From Waersberghen to Coll south and by east 12 leagues.
From the south ende of Swedero to Coll southwest 4 leag.
From the Riffe of the Scaw to Maelstrand eastnortheast 13 leagues.
From the Riffe of the Scaw to Nyding southeast and by south 16 leagues.
From the Riffe of the Scawe to Waersberghen east southeast 23 leagues.
From the riffe of the Scawe to Coll alongst without the Trindle south 30 leagues.
From the Riffe of the Scawe to Lesou southsoutheast 8 lea.
From the Riffe of the Scawe to the Trindel due southeast 8 leagues.
From the Trindel to Anouts riffe southeast, or as some will saie somewhat more southerlye. 9 or 10 leagues.
From Anoutes riffe to Coll it is right southeast 10 leagues.
From Anouts riffe to Haselin south 10 leagues.
From Coll to Haselin southwest and by west 8 leagues.
From Coll to the northermost out-poynte of Zealand southwest 5 leagues.

How these Lands doe shew themselves at sea.

Thus sheweth the land of Northeast betwixt Southerwycksholme and Maelstrand, when you saile alongst by it, being foure leagues without the land.

Thus sheweth the land betwixt Maelstrand and Waersberghen.

Thus sheweth the Land of Waersberghen, when you saile alongst by it, from Aout into the Sound.

Thus sheweth Anout, when you saile off from Lesou.

Thus Sheweth Lesou when you saile from the Scawe towards it.

The

The ſixt Demonſtration,

In which

Are ſet forth the North coaſts, between Aker-ſound and Schaer-ſound, and from Schaer-ſound to Schuytenes.

THE Longſound is one of the faireſt havens of all Norway, and lyeth north-northeaſt from Iofferland diſtant one great league. Before old Longſound lyeth a high round rocke, whereupon ſtandeth a great round Warder, for knowledge of this haven. Coninxhaven that is the ſouthermoſt or weſtermoſt channell of the Longſound, and goeth in betwixt the weſtermoſt through poynt and Conings Iland, and then men run alongſt to the eaſtwards of the Baers, which lyeth off from the foreſayd rough poynt. For to ſayle in there, you muſt run in amid channell, and ancker in the Coningſhaven in 28 and 30 fathom.

Conings-haven.

The Neſſe

For to ſayle into the Neſſe, that is on the north ſide behinde the eaſtermoſt point of Longſound (you muſt run through betwixt the great rock, whereupon the Warder ſtandeth, and the land of old Longſound, leaving the foreſayd rocks on the ſtarboard ſide, and ſo alongſt about that rough Iland, untill you come into the Neſſe, which lyeth behinde a chindle ſtrand, there you ſhall lye under a chindle of rockes like red ſand: There lye alſo ſome little rockes thwart of that chindle. This is a good handſom haven, and light for to come into, there it is 24 and 25 fathom deep.

Stavange.

A league to the eaſtwards of the Neſſe, or eaſt poynt of the Longſound, lyeth Stavange, that are ſome out-rockes, where men may ſayle within on both ſides, to the eaſtwards of it lyeth the Sound of Laerwyck.

Laerwyke

The Laerwyck is a great broad Sound, where are many Bights and Lade-places, where men may lye & lade Firre-timber. From the eaſt poynt lyeth off a great rane of rocks a good wayes off ſoutheaſt and by eaſt into ſea, and run in almoſt halfe the Sound, called the Laerwykes Swines, whereof men muſt take heed. Within in this Sound it is flat water and ſhould, ſo that farre within no great ſhips can lye afloat.

Farder.

From the Laerwyck unto the Iland Farder the courſe is eaſtnortheaſt foure leagues, betwixt them both lyeth the little towne Tonsbergen in a great Bight. And from Farder

Baſt.

to the Iland Baſt the courſe is north and by weſt five leagues, betwixt both lyeth a fowle poynt. To the ſouthwards of Baſt lyeth Markenboet, & the Bight of Aſko, but to the northwards of Baſt lyeth Lowſound.

Soenwa-ter.

From the Iland Farder to the Soen-water, the courſe is north, but from Baſt north and by eaſt. The Soen-water lyeth in moſt north. Vpon it lye many havens and lade places, moſt on the ſtarboard ſide as you come in. Firſt there is Mos-ſound, a haven that goeth up to the eaſtwards,

wykeſtee. Ship-hill.

and then there is Wykeſtee, which is a bight behind an Iland, afterwards Shiphill, a ſandbay and a very good road, that goeth ſo up alongſt to the northwards into Anſlo, and then it turneth about to the ſouthwards into the Bottom.

Copper-wyke.

When you ſayle from Farder or Baſt unto ſoen-water, you ſhall meet with a red poynt, betwixt the Soen-water and the Copperwyke. He that is bound into Soenwater muſt run alongſt to the eaſtwards of it, but he that is bound into Copperwyke muſt goe up alongſt to the weſtwards of it and leave it on the ſtarboard ſide. When that you come within the Lams, you ſhall eſpie a little church upon the weſtland, there is the lade place of the Copperwyke, you

Brakenes. Holm-ſound.

may ſayl up from thence to Brakenes. On the north or eaſt ſide lies Holmſound, from Farder to the poynt of Roge the courſe is northnortheaſt 5 leagues. At the eaſt end of Roge you may ancker, there is a plain ſtrand, you may run through betwixt the Roge & the Calf, but ancker under Fletto, then you muſt run through within the two ſmall rocks.

Roge.

From Baſt unto the Siſters the courſe is ſoutheaſt five leagues. Behind the Siſters to the ſouthwards of the poynt of Roge, lyeth the haven of Elffang, diſtant from the Iland Farder northeaſt and by eaſt 5 leagues. When you come off from Farder, you muſt run through within the rocks, which lye within the Siſters, untill you come againſt the land, there you ſhall find a great gray rock, which you muſt leave on the larboard ſide, and the ſmall rocks that lye there within on the ſtarboard ſide, & then alongſt about by the weſtland, & then the te haven opens it ſelf, which is narrow, & within flat & ſoft ground.

The Siſters.

From the Naze (that is the ſouthermoſt poynte of Norwaye on the north ſea) weſtwards, the coaſt lyeth ſomewhat alongſt by the land of Leeſt, weſtnorthweſt; but to the eaſtwardes of it (alongſt without the rockes, untill paſt the Iland Fleckerie) eaſt northeaſt about tenne leagues. From thence alongſt northeaſt unto the Longſound about ſixteen leagues. This coaſt is all alongſt of high ſteepe ſtonie hilles and without it full of manie rockes verie ſtrange to behold, but it hath manie faire deep havens, with verie good ancker-ground, where in great abundance of timber and boards laden. The firſt Havens to the eaſtwardes of the Naze, is called the Kloof or the Cowe and Calfe, after two high hommockes, good to be knowne, the one ſomewhat greater then the other, which lye within the Haven upon the high land, and are ſo called by the Dutch Shippers. Te that will ſayle into this Haven comming from the weſtwardes, ſhall meere with a greate rock ſomewhat to the eaſtwardes of the Naze, called Melyn, where upon is a Warder, being paſt that he ſhall find another outrock, whereupon ſtandeth alſo a Warder, called Sparrels. Betwixt theſe two outrockes, he muſt runne into this haven the Kloof. When he commeth againſt Sparrels, there lyeth a ſuncken rock under water, where of the muſt take heede. Somewhat within Sparrels lyeth another Rock in the farewaye, but above water, which he muſt leave on the larboard ſide. In ſayling in ſo, the haven doth open it ſelf, by little & little, and ſo ſhall come againſt the Kloof: being come within it he muſt edge up to the weſtwards, about the poynte, and ancker there in a ſand baye, in fifteen or ſixteen fathom, ſo that the two fore ſayde hommocks the Cowe and the Calfe ſtande about northeaſt from him.

The Cowe Calfe.

A little to the eaſtwards of Sparrels lyeth a haven called Scarſound, or Weſtryſen, for to ſayle in there, you muſt leave Sparrels to the weſtwards on the larboard ſide, and all the great Holmes or rocks to the eaſtwardes on the ſtarboard ſide, and runne ſo inwards untill you come into the haven.

Scarſound

Four leagues to the eaſtwards of Scarſound, lyeth the Iland Holyſound, whereupon ſtande two greate Warders, you muſt ſayle in to the weſtwards of the Iland, untill that you be within it, & ancker under the foreſaid Iland. Thwart of it runneth in a great Sound, into the land, where you may ſayle in, & where manie ſhippes lade.

Holy Sound.

About three leagues eaſtnortheaſt from Holyſound & eight leagues to the eaſtwardes of the Naze, lyeth the haven & iland Fleckerye, you may ſayle in at both ſides of the Iland, as well from the weſtwardes, as from the eaſtwards into the haven of Fleckerie. The weſtergat lyeth in northnortheaſt. When you come off from Holyſound then you ſee open into the Sound, you muſt ſayle alongſt by the

Fleck.

The Weſtergat Fleck.

t Hoge landt van Spanger

Omgekeerde Boot

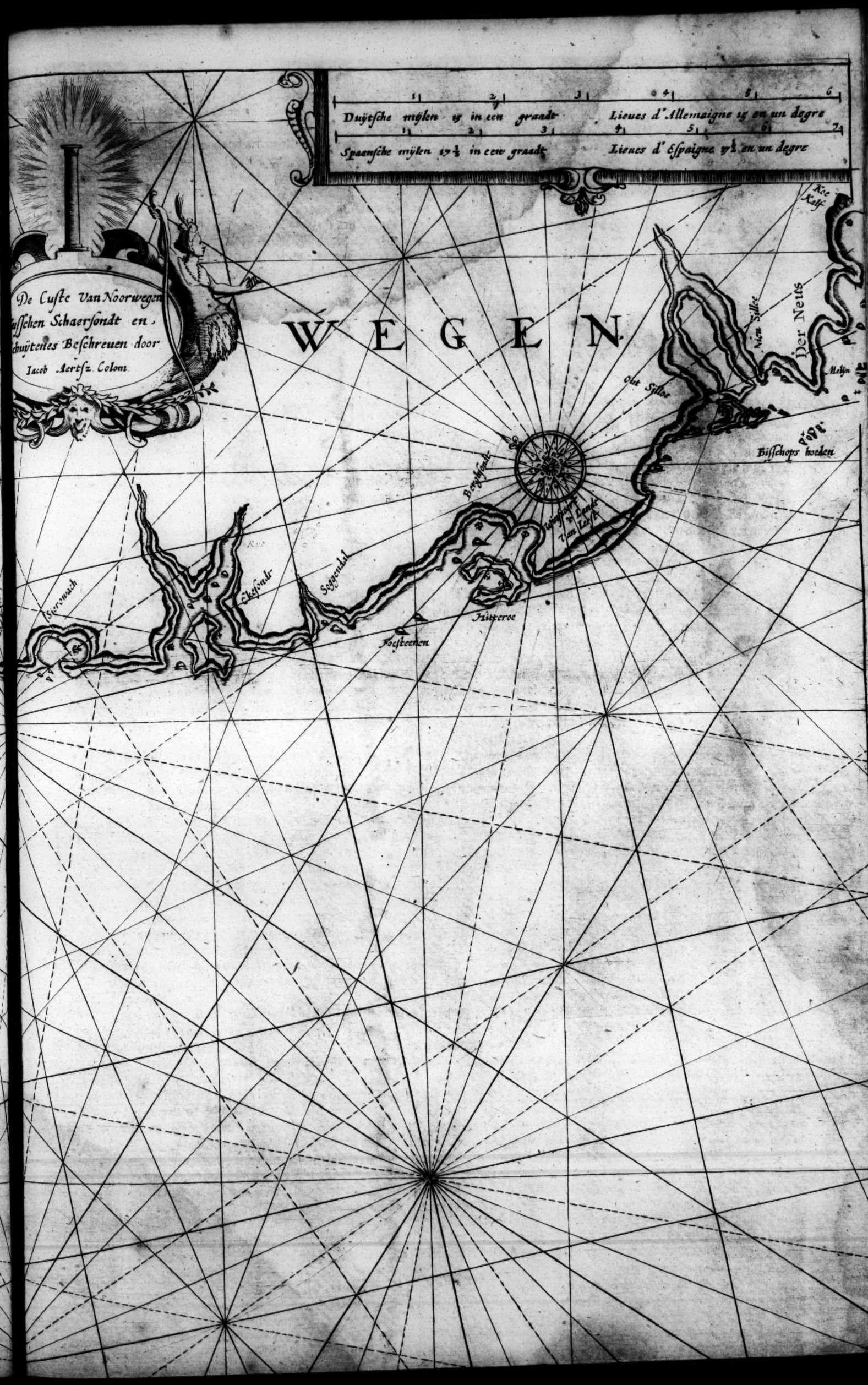
Duytsche mylen 15 myen een Graat
Lieues d'Allemaigne 15 en un degré

Dyr Veus
Kalf
Koe
De t Loof van Koe en Kalf
Schaersondt off Westeryssen
Heylige sondt
Hecker
Otterysses
Ranglont
Roper wyck
Wolfsondt
Olde Hyssondt
Kamersondt
Hoyses
Maerdom
De Ves van Maerdom
Het Eylandt Vroni
Vroni sondt
Spaerds t gat van Westeryssen
t Gat van Heylige sondt De Hilligen
Gene
Wester gat van Hecker
Eylandt van Hecker
Oostergat van Hecker
Eylandt van Wolfsondt
Blindsonts Eylandt
t gat van Olde Hyssondt
t gat van Kamersondt
Eylant van Hoyses
Mierholmen
Oostergat
t Eylant van Maerdom
Oostergat
t gat van Oostvoort
t gat van Langen

Akersmuys
Braeckeneße
Amsteedt
Holmsondt
Schoorwater
Poolse gronden
Enkhuyn
't Mans Water
Copenwyck
Schiphil
Broobeeck
Oude Langefant
De Nesse
Lutenwyck
Marsfiel
Vogelsangh
Vogelboeck
Marken Eylandt
Buse
Mosondt
Monnicke Eylanden
Stavange
Swynen
Elsange
Ferder
Graswyck
De Sussant
35
Schiphil
Akersondt

Les Costes Marines
de Norwegue depuis
Akersont jusques à Schu

Kaersfiord
Stiernieroe
Stafanger
Diesholm
Dolsiwyck
Jongeurs
Bockfiort
Skilsfiord
Cline Bock
Sibrichsteen
Bock
t' Siedt
Copenwyck
Schutsneess
Wytinsoogh
Vista
Veetsteen
Rut
NOOR


Duÿtsche mÿlen 15 in een graadt
Lieues d'Allemaigne 15 en un degre
Spaensche mÿlen 17½ in een graadt
Lieues d'Espaigne 17½ en un degre
De Custe Van Noorwegen
tusschen Schaersondt en
Schuytenes Beschreuen door
Iacob Aertsz. Colom.
WEGEN.
Der Neus
Nieu Sillee
Out Sillee
Bisschops hoeden
Bergshondt
Lindes
Tam. Lindes
Siersnaes
Ekesondt
Soggendal
Hitteroe
Foestenen

The easter gate.

Reper-wyck.

VVolf-found.

Old Hil-found.

Hamer-found.

by the Rockes without Holysound, untill you cone within the Iland Fleckerie, and edge the westwards towards the land, untill you come within the Dieveholme, where the gallowes standeth upon, and ancker by the west land, in fifteene, sixteene, or twentie fathome: You must bring out there an ancker a head, & make a cable fast on the rocks upon the land. You may runne from thence to the eastwards of the Jland Fleckerie, out againe at the Easter gatte eastnortheast into sea; and then you must leaue the little Jland with the Warders, which lyeth at the east ende of the Jland Fleckerie, with all the greate rockes by it on the starboard side, and all the black holmes on the larboard side.

The easter gatte. The eastergatte of Fleckerie goeth in westnorthwest, betwixt the Jland Fleckerie and the poynte of Ransound. When you come before it, you may see open in the Vosse. For to sayle in there, you must leaue all the black rocks thwart of the poynt of Ransound on the starboard side, and the greate graye rockes with the little Iland, where the Warders stand upon, on the larboard side, when as you com then by the forenamed Dievenholme you must runne to the westwards of it into the Sandbay, and ancker there, as is beforesaid.

When you are thwart of the easter gatte of Fleckerie, then there lyeth right thwarte from you within the land a high round hill, which men doe call the Boate turned up side downe, which lieth out aboue al the lands thereabouts, & comming from the westwards against Fleckerie, there shewe also three high double lands, which by little & little seeme to goe to nothing towards the Drommels.

Reperwyck. Three leagues to the eastwards of Fleckerie lyeth Reperwyck, a broade & wide Sound, lying in north, & north & by west. For to sayle in there, you must runne in by the land of Wolfsound (lying on the east side of this haven) leaving all the rocks (& also where the mast of Wolfsound doe stand upon) on the starboard side, & all the rocks of Ransound on the larboard side, untill that you come to the end, or within in the haven, & then you must edge up to the westwards about the poynt, and ancker there, that is a good haven for ships that are bound to the westwards.

VVolfsound. On the east side of Reperwyck lyeth Wolfsound, before it lye two great Jlands, which shew themselves in high gray Rockes, with three or foure Warders upon them, wherby you may know them.

Wolfsound is a narrow haven for to sayl into, there stand two mastes upon the west-land, where you must goe in close by, leaving them on the larboard side, and some little rockes on the starboard side, untill that you come within the greate Jland, whereupon the great Warders stand, there you may anckor, and lye landlockt for all windes. From thence you may runne foorth through within the rocks and come out againe into the sea, by the old Hillsound, or you may runne out also at the Eastergatte of Wolfsound, there standeth a greate Warder on the west side of the gatte, upon a round high rock, there you may saile out or in by it where you will.

Old Hilsound. To the eastwards of Wolfsound lyeth olde Hilsound, but betwixt them both, at the point of the west side of old Hilsound lyeth the Jland of Blind sound, to the eastwards of it lye manie greate rockes, with two or three Warders upon them.

For to sayle into the old Hilsound, you must runne alongst to the eastwards of Blind-sound with the rocks that lie by it, in by the west land, leaving them on the larboard side, & the foresayde greate rockes or Holmes with the Warders altogether on the starboard side, there are divers faire Sounds, where men may saile into & ancker in, without taking hurt. You may edge up to the westwards about the point, and saile through betwixt the Ilands, that you can not see the sea.

Hamersound. To the eastwards of old Hilsound lieth Hamersound, lying in northnortheast. On the west side of the havens mouth lyeth a suncken rock which you must avoyd, & saile close alongst by the Jland which lyeth on the east side of the havens mouth, and ancker behinde the Iland right against the Warder, in thirtie fathom. The eastergatte lyeth to the eastwards of that Jland, in and out northwest, and southeast: upon the west side lyeth a rock with a Warder.

To the eastwards of Hamersound, men doe goe into Kerck-sound. Kercksound, and then a halfe league more to the eastwards lyeth the haven of Hesnes. Upon the Iland of Hesnesse stande two Warders: thwart of them it is verie steepe, but towards the little church it is showlder, to wete, about thirtie fathome: the out-rockes thereabouts are all redde of colour. Hesnesse.

On the west side of the havens mouth lyeth a suncken rock under water, called the Koenagle, upon the land stand two little mastes, when they come one in the other, then you are thwart of the Roenagell. The two foresayd little mastes, stand upon a graye Holme, leave that on the starboard side, and go so still inwardes, there it is high land, & the Drommels lye from thence northnorthwest within the land, there you may saile through within the rocks, untill you come into Maerdow.

Maerdow. The Iland Maerdow standeth (upon the top of it) full of trees, and round about it are all bare rockes. On each side of the Iland goeth in a channell. The wester gatte or channell goeth in to the westwardes of the Iland, and the Eastergatte to the eastwardes of it. For to sayle into the wester gatte, you must leaue the Mewholmes (that are a few rocks and Ilands to the westwardes of the Jland of Maerdowe) on the larboard side, and the Jland on the starboarde side, and run in so betwixt them both northwest and by north, but with a southwest wind, you must sayle in northwest. Vpon the northermost Miewholme standeth a Warder.

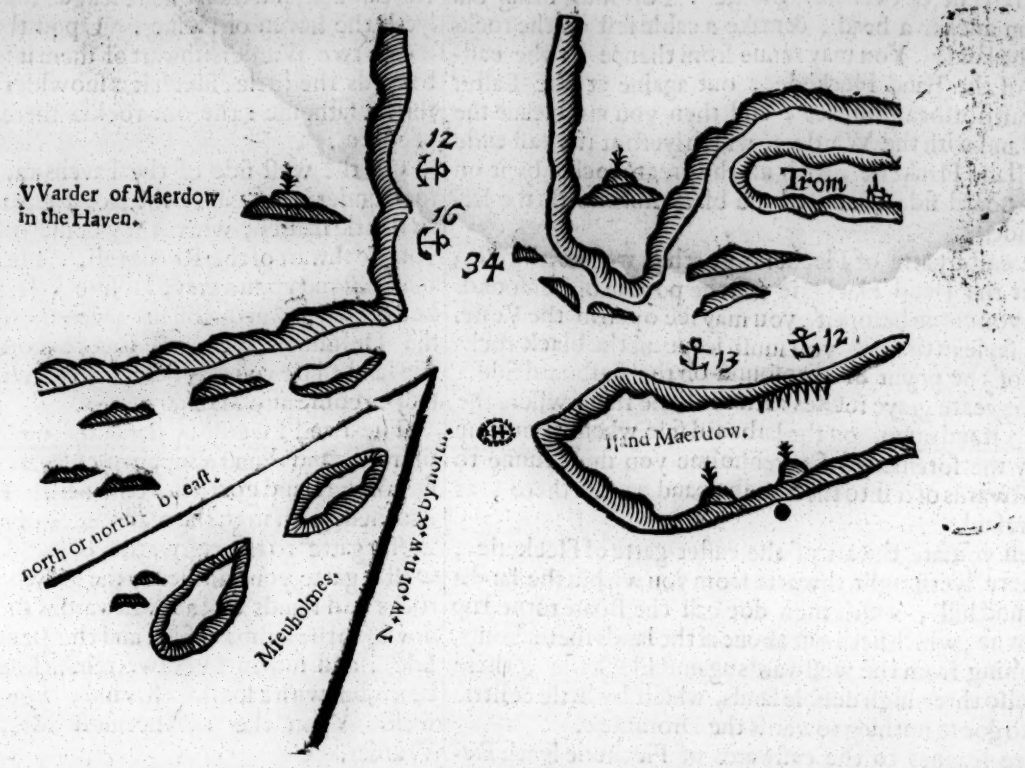
Thwart of the west end of the Iland Maerdow lyeth a suncken rock under water, whereof you must take heed, when you saile in thus to the eastwards of the Miewholmes. When you are come within the foresayd west poynt or the Iland Maerdow, you may runne up towards the northeast behind it, & ancker in 12 or thirteen farhom, or saile up towardes the northnorthwest into the Sound, and ancker there on the west side in 16, 14 or 12 fathom, according as you sayle farre in. Jn the going into the sound, or haven, it is 34 fathom deep.

For to sail into Maerdow, through within the Mewholmes. With a bare winde, or otherwise, you may sayle also into this wester-gat of Maerdow to the westwards of Miewholmes, thus: To the westwards of the southermost Miewholme, not farre from it, lye two little rockes, even aboue water, and a little further off from it two other rockes which are somwhat greater, you must runne in amidst the channell through betwixt them, leaving the two smallest lying on the starboard side, and the two greatest on the larboard side, that channell lyeth through most north and north and by east. Being come to the end of the Miewholmes, you may saile up either towards the northeast behinde the Jland Maerdow, or westwards into the haven, as is beforesayd There goeth somtimes a good tyde out of this haven, and the westerly windes doe blow commonly out of this channel betwixt the high lands therefore he that will come in here with a westerly winde, must be very carefull, and keep up his topsailes, or els he should lightly not be able to get the haven, but driue out of it against his will.

The easter gat of Maerdow The Eastergat lyeth in westsouthwest there lyeth a suncken rock on the starboard side, when you sayle in, therefore you must run in close by the Iland. Jt is not deeper there in the gat or channell then three fathom, but being come within it, you shal finde it deeper, you may ancker there under the Jland in twelve or thirteene fathom, or you may run up to the westwards into the Sound, as is beforesayd. To ancker under the Jland there is the shovvldest vvater, but vvith a northvvest or northnorthvvest vvinde, it is not so good to come from thence as out of the haven, but vvith an easterly vvinde it is better to set sail from thence and to get into sea. When the Drommels are n. vvest and northvvest & by north from you, then you are right thvvart of Maerdovv. If you run in so out of the sea, right vvith the Drommels, you shall fall right vvith Maerdovv, that is a certain mark to knovv

Marks of Maerdow

The Haven of Mardow.



whether you be thwart of Maerdow , or to the eaſtwards or the weſtwards of it , but when you are cloſe before the land , or before the havens mouth , you cannot ſee the Drommels , becauſe they are then hidden of the cliffe and

Trom-ſound. About halfe a league to the eaſtwards of Maerdow ſtandeth a little white Church upon the ſea ſide , to the eaſtwards of it goeth in the Trom-ſound , being a faire Sound. Without in the comming in , ſtand on the eaſt or northſide two Warders upon a high hill , you muſt ſayle in by them , and thwart of them you may alſo ancker, and from thence you may ſayle in further behind the Iland Trom, and the land of Maerdow , uniill you come into the Sound of Maerdow.

Oxefoort About a league to the eaſtwards of Trom-ſound lyeth the haven of Oxeford , which is a great broad , and large Sound , lying in firſt without betwixt the rocks , north. Without in the comming in to the weſtwards of the havens mouth , lyeth a long rock , which you muſt leaue on the larboard ſide , and ſomewhat paſt that long rock lyeth a ſuncken rock which you muſt leave on the ſtarboard ſide and run in ſtill north unto the weſt poynt of the land, thwart where of lyeth, ſuncken rock which you muſt avoyd, wheu that you come then within the weſt poynt , you muſt ſayle in northweſt and northweſt and by north, and ancker on the north ſide of the haven , there it is wide and broad , with may bights , where you may ancker every where in 20 and

Longhen. 25 fathom.

A league to the eaſtwards of Oxeford lyeth Longhen , before it lies a little round Iland or rock on the eaſt ſide of the haven , upon which ſtandeth a maſt with a barrell upon a Warder. For to ſayle in there , you muſt run in cloſe by that land where the Warder with the barrell ſtandeth upon , cloſe alongſt by the Warder , but there ſtandeth a hand on the ſtarboard ſide of the havens mouth , which poynteth that there lyeth thwart of it a ſuncken rock under water , there you muſt edge ſomewhat off from the ſhore. Being within there , you may run to the eaſtwards againe into ſea , and come out in the Sound of Sandvoordt.

When you are before Oxefordt and Longen then the Drommels lie about weſtnorthweſt from you.

A great league to the eaſtwards of Longen lyeth Sandfort. For to ſaile in there you muſt leaue all the little rocks on the ſtarboard ſide , and run ſo alongſt by the land untill you come within the Long-holms which remain on the larboard ſide , and then right into Bight. This is a faire haven, men come into it from the eaſtwards. Thwart of Sandvort lyeth a banck at ſea , which at ſome places is not deeper then 3 or 4 fathom , and lyeth alongſt to the eaſtwards untill thwart of Weſtkiell.

Markes of Ozefoort & Longé Sahtuoort

VVestkiel

A league to the eaſtwards of Sandvoort lyeth the hauen of Weſtkiel , a little to the eaſtwards of it lyeth Iofferland. For to ſayle into Weſtkiel , you muſt leaue all the great rocks (which lie off from Iofferland on the ſtarboard ſide, (and all the foreſayd little rocks of Sandvoort , and alſo a white holme whereupon a maſt ſtandeth on the larboard ſide. aad run in firſt northweſt and afterwards northnorthweſt and at laſt north , until you come about the weſtpoynt , and then you muſt edge up northweſt to the northſide of the Jlands which ly within the haven, there is a Voſſe or an Overfall of water , there you may ancker in 20 or 25 fathom.

Iofferland

When you come before Weſtkiell you may ſee within the land three high hills , and alſo the high land of Longſound, lying northwards from you , that land is altogether very good to be knowne, he that ſeeth it once , and taken regard of it, ſhall know it very wel another time , when he commeth thereabouts.

From the northermoſt rocks of Jofferland unto the Baers, that is the ſouthermoſt or weſtermoſt point of Longſound, the courſe is northnortheaſt a great league. Betwixt them both lye two havens , Eaſtkiell and Abbefoord , men ſayl in there to the eaſtwards of the out-rocks of Iofferland. From theſe foreſayd northermoſt out-rocks of Iofferland unto Eaſtkiell , it is northweſt about a league , but to Abbefoort northnorthweſt and north and by weſt alſo a league. Men may (comming from the ſouthwards , or from Weſtkiell) ſayle through within Iofferland, into Eaſtkiell , or Abbefoort.

The Baers

For to ſayle through within Iofferland from Weſtkiell , the Sound lyeth through the channell firſt northeaſt and northeaſt and by north , and then eaſtnortheaſt , and afterwards againe northeaſt , and then you come to a place where the ſound is ſomewhat broader , there lyeth a ſuncken rock, which you muſt leaue on the ſtarboard ſide, and edge to the north ſhoare. Being paſt that , you ſhall come

come againe in a very narrow ſound, which lyeth through moſt northeaſt, and is at ſome places ſo narrow, that the yard armes doe almoſt touch the rockes. Being through that narrow place, you muſt goe northeaſt and by eaſt, and eaſtnortheaſt, until you come twart of the Longſound, then you may ſayle in there northnorthweſt, or ſayle into the ſea as you wil: Behinde Iofferland you may alſo ancker in 15 and 20 fathom.

Road behinde Iofferland.

A little to the weſtwards of the poynt of the Naze lye two havens, New and Old Silloe, or Silleu; ſome doe cal theſe one haven (like as alſo men may doe) and biſtinguiſh it with an eaſter and weſter-gat or Haven, for men can goe with boats through within the rockes from the one into the other, but not with great ſhips.

For to ſayle into the eaſter-gat, or New Siloe you muſt take heede of the Biſhops Boeden, which are a few out-rocks a little to weſtwards of the poynt of the Naze, right before the middeſt of the ſound, leave them on the larboard ſide, and ſayle in alongſt by the land of the Naze until you come ſomewhat within the foreſayd Biſhops Boeden, & then you ſhal finde there alſo a ſuncken rock, which you muſt avoid, run about to the northwards of it and edge then up to the weſtwardes behinde the Iland of New Silloe, and ancker there againſt the white church within the foreſayd rock.

Silloe.

For to ſayle into the weſter-gat, or Old Silloe, you muſt run about to the weſtwards of the out-rocks, and Biſhops-Boeden, & ſayle right with the ſouth end of the land of Leeſt; being come by it, run to the eaſtwards alongſt by it, but take heed of ſome rocks, which lye off from the innermoſt Iland on the ſtarboard ſide, being there within ancker againſt the Iland, where you pleaſe.

Old Silloe

The Land of Leeſt.

From the Naze to the Iland Hitteroe, or Hittereu, the coaſt lyeth alongſt the land of Leeſt weſtnorthweſt 5 leagues. To the ſouthwards or the weſtwards of that Iland men doe ſayle into the haven of Windfoord, which lyeth in northeaſt, but to the northwards of it men doe run into Bergſound, eaſtnortheaſt in betwixt the Iland and the land.

Hitteroe.

VVindfort

Bergſoud.

In that Iland is alſo a good haven, which you muſt ſayle into frõ the northwards, the havens mouth is not very wide when you are come in within it, you may edge up to the eaſtwards or ſouthwards, and ancker.

Two leagues to the northwardes of Hitteroe lyeth a haven called Soggendall, there lieth a little Iland before it, within men may ancker, it is a good road for them which are bound to the ſouthwards. Betwixt them both, not farre without the land, lye two out-rocks alongſt the ſhore, called Fock-ſtones, the one lyeth a little more to the ſeawards then the other.

Soggẽdall

A league to the northwards of Soggendall lyeth Ekeſound, before it lyeth an Iland, which you may ſaile into on both ſides of it, the ſouthergat lyeth in northeaſt; being come in there you muſt ancker on the north ſide of the haven in a bay, there is the beſt road in eight or nine fathom, the norther gat lyeth in to the eaſtwards; being come in there, you may anckor at divers places. A league to the northwards of Ekeſound lyeth a haven called Sierowach. For to ſaile in there, comming from the northwards; you muſt run in right with the ſouthermoſt ſand bay untill you come cloſe by the ſhore, and then the haven doth open it ſelfe, loof up cloſe alongſt by the north ſhore, then run up by it to the ſouthwards, & avoyd the weſt point, thwart of it lyeth a ſuncken rock twelve foot under water; being there within, let your ancker fall in 7 or 8 fathom, & bring a cable on the weſt ſhore, then you ſhall lye land-lockt for all windes. This is a good haven for thoſe which are bound to the northwards.

Ekeſound.

Sierowag.

To the northwards of Sierowach lyeth the land the Iedder, which lyeth from Sierowach firſt northweſt and by north two great leagues to point Walbert, or Mids-Iedder, & the north 4 leagues, which is altogether a clean whole coaſt, without any dangers or havens, except at the very north end, from which runneth off a little riffe northweſt into ſea, towards the Veetſtone.

Veetſtone.

The Veetſtone is a great rock; lying about two leagues without the land, lying northnorthweſt from Mids Iedder five leagues, betwixt them both, a great league to the ſouthwards of the Feeſtone, lye ſome low black rockes, called Rut. When as you ſaile from Mids-Iedder on northnorthweſt towards the Veetſtone, then the Veetſtone doth ſhew him ſelfe very round, like a hay-cock, and ſayling ſo, you might lightly fall with the foreſayd rocks of Rut, but being a little more to ſeawards, the Veetſtone ſheweth it ſelf a little longer on the weſt ſide, then you can not take hurt of the rocks of Rut.

Rut.

About two leagues northnorthweſt from the Veetſtone lyeth an Iland, whereupon ſtandeth a church called Whitings eye, but n. n. e. from the Veetſtone 4 leagues, lyeth another Iland before the ſound of Stavanger, called Sibrichſtone.

Whitings eye.

Sibrichſtone.

If you will ſaile into Stavanger comming from the ſouthwards, then ſayle through betwixt the Veetſtone & the maine land, leaving alſo the foreſayd rocks of Rut, lying on the ſtarboard ſide, but you muſt take very good heed of that little ſtone-riff which lyeth off from the north end of the Iedder; ſaile in ſo untill that the Veetſtone doe lye ſouthweſt from you, then goe in northeaſt towards the point of Tongenes, which is a long point and low land on the ſouth ſide of the ſound.

When as you ſayle now from the Veetſtone towards Tongenes, then you ſhall ſee that Iland Sibrichſtone before the ſound, which doth ſhew it ſelf in two parts, leaue that on the larboard ſide, and ſayle in by the point of Tongenes, but there lyeth a rock off to the northwards from the point: ſaile through betwixt the rock and the point, about eaſt or eaſtſoutheaſt into doeſwyke; when you are within the caſtle of Doeſwycke, there you may ancker. But if you will ſayle in further before the town of Stavanger, then leaue the Dief-holm on the ſtarboard ſide, and ſayle in ſoutheaſt and ſouthſoutheaſt before the towne, and ancker there where you pleaſe.

Tongenes

Doeſwyk

Stavange.

But when as you come from the northwards, and will ſayle to Stavanger, then run through betwixt the Veetſtone & the wittings eye, and then goe on northeaſt towardes Sibrichſtone, and the poynt of Tongenes, and doe further as hath been before taught.

From the Veetſtone to Schuytenes the courſe is northnorthweſt 5 leagues: but from Schuytenes to Sibrichſtone through betwixt Whitings-eye, the courſe is eaſt five leagues.

Schuytenes.

Foure leagues weſt and weſt and by north to ſea-wards from Schuytenes lye the rocks called the Outſeers.

Outſeers.

Of the ſtreames on theſe coaſts.

On theſe coaſtes of Norway off from the Naze, untill paſt Berghen unto Stade, the water riſeth and falleth, but keepeth no certaine tyde: but from thence towards Dronten, and to the northwards of it, it keepeth tyde according to the moone, like as in other places.

How theſe landes doe lye one from the other and from other lands.

From Iland Farder to the Longſound weſtſouthweſt eight leagues.

From Farder to Larwyke w. ſ. w. 4 lea.

From Monck Jland, or Roge to Farder, ſouthſouthweſt 5 leagues.

From Baſt to Farder ſ. and by e. about 5 leag.

From Soenwater to Farder ſouth or ſomewhat more weſterly 8 lea.

From Copperwyck to the Baſt ſouth and by eaſt 4 lea.

From Red-poynt to the Baſt, ſouthſouthweſt 4 lea.

From Siſters to the Baſt northweſt 5 lea.

From Aker-ſound to the Siſters weſt and by north 4 lea.

From Scharesound to the Naze weſtſouthweſt three lea.

From Fleckory to the Naze weſtſouthweſt eight leagues.

From Rut to the Veetſtone n. and by w. a league and a half.

From the Veetſtone to Schuytenes north northweſt 5 leagues.

From Sibrichſtone to Schuytenes through within Whitings eye weſt 5 leages.
From the Naze to Outſeers the courſe is n.w, 29 leag.
From the Naze to Hitteroe the courſe is w.n.w. 1 leag
From Hittero to Ekeſound the courſe is n. w. 4 leagues.
From Ekeſound to Sierowach north w. & by north 2 leag.
From Sierowach to Mids-Iedder, n.w. and by north 2 leag.
From Mids-Iedder to Rut the courſe is n.n.w. 4 leagues.
From Wolf-ſound to Fleckory or Reperwyke to the Naze weſtſouthweſt 3 leagues.
From Blind-ſound to Wolf-ſound ſ.w. 3 leagues.
From Maerdow to Blindſound ſ.w. 4 leagues
From Maerdow to Wolf-ſound or Reperwyk weſtſouthweſt 8 leagues.
From Iofferland to Maerdow ſ.w. 8 leagues.
From Eaſtryſen to Maerdow ſouthſouthweſt 3 leagues.
From Longhſound to the Iofferland ſouthſouthweſt one great leage.
From Joffer-land to Fleckory ſ.w. 19 leag.
From Wolf-ſound to Fleckory w.ſ.w. and ſ.w. and by weſt about 2 great leagues.
From the Naze to the Holmes in Jutland ſoutheaſt 19 or 20 leagues.
From the Naze to Bovenberghen ſoutheaſt and by ſouth 24 leagues.
From the Naze to Holyland the courſe is ſouth and by eaſt and ſ.ſ.e. 67 or 68 leagues.
From the Naze to the Eems, ſouth, ſomewhat eaſterly 75 or 76 leagues.
From the Naze to Born-riffe, ſouth ſomewhat weſterly 83 leagues.
From the Naze to the Teſſel or Maerſdeepe the courſe is ſouth and by weſt diſtant 93 leag.
From the Naze to walcheren ſouth and by weſt 125 or 126 leagues.
From the Naze to the Heads, or the Strait betwixt Calice and Dover, the courſe is ſouthſouthweſt, or ſomewhat more weſterly 143 leagues.
From the Naze to the Holmes before Yarmouth ſouthſouthweſt, ſomewhat weſterly 104 leagues.
From the Naze to Flambrough head ſouthweſt 100 leagu.
From the Naze to Scarborough ſouthweſt 99 leagues.
From the Naze to the rivier of Newcaſtle ſouthweſt & by weſt ſomewhat weſterly 104 leagues.
From the Naze to lieth in Scotland weſtſouthweſt ſomwhat weſterly 103 leagues.
From the Naze to Boeckneſſe weſt ſomwhat northerly 88 or 89 leagues.
From the Naze to Fayrhil w.n.w. 93 leagues.
From the Naze to Hitland the courſe is n.w. and by weſt about 100 or 101. leagues.
From the Kloof or the Cow and Calf to the Scaw the cours is eaſt and by ſouth ſomewhat eaſterly 30 leagues.
From Fleckory to the Holmes in Iutland ſoutheaſt and by ſouth 19 leagues.
From Fleckory to the *Scaw* eaſt and by ſouth 25 or 26 leagues.
From Reperwyke to the *Scawe* eaſt and by ſouth and eaſtſoutheaſt 24 leagues.
From Maerdow to the Holmes the courſe is ſouth 24 leag.
From Maerdow to the Scaw ſoutheaſt and by eaſt 20 or 21 leagues.

How theſe Lands doe ſhew themſelves at Sea:

Calfe cow.

Thus ſheweth the Cow and Calfe, being foure or five leagues north and by eaſt from you.

Thus ſheweth the Nace, being four or five leagues weſt from you.

Calfe cow.

Thus ſheweth the Cow and Calfe, when you come from the weſtwards, and are thwart of them

Thus ſheweth the land to the eaſtwards of Longſound, when you are about five leagues off from the land, and ſaile from the weſtwards alongſt by it.

The Naze. The land of Spranger.

Thus ſheweth it ſelfe the land of Norway, betwixt the Nace and Fleckory, when you are about five leagues off from it.

Fleckory The Boat VVolfſound Hamerſound

The land betwixt Fleckory and Maerdow, or the Drommels, ſheweth thus, when you come from the weſtwards, and ſaile alongſt by it.

Drommels Hill to the northwards of the Drommels Eaſt Drommels The land of weſtkiel

Thus ſheweth the land betwixt Maerdow and Longſound, when you are about Langhen, five leagues without the land.

Thus ſheweth the land of the Iedder, when it is northeaſt five leagues from you.

Thus ſheweth the land of the Iedder, when is eaſtnortheaſt 5 or 6 leagues from you.

The

Les Costes de Norwege
Entre Schuytenes et
Stemmeshest
Chez Jaques Colom.

Duytsche.
Spaensche
Eng: en Fr.

van N GEN.
van Berge meshef
Nieu ven.

Stemmes hoft
I. Leverholm
Riviere van Roemsdael
I. Lever
Beresandt
Roomdaese Schaeren
Roomsdaesche Eylanden
Sudmers Leen
Hoogh hoeck
Flamsee
Limsee
Harmsoo
Goeden
Bresandt
Hoogh Eylanden van Flowach
Swinde
t Landt

Duytsche Mylen 15 in een graedt
Lieues d'Allemaigne 15 en un degre

Bergen
Werckenes
Lethornes
Reefsoen
Clein Alfioerd
Het groote Eylandt.
Cruysnes
Rockum
Root:
Stormsandt
Ingesandt
Nieuwe Lin
Ruttyholm
t. Land

graet. Lieues d'Allemaigne 15 en un degr
graet. Lieues d'Espaigne 17 ½ en un degre
graet. Lieues Angl. et Franc. 20 en un degr

GEN.
meshest.
wen.

Berg/en
Rachter
Smedwyck
Harlee
Wtwoer klippen
Oldesont
Het
Liet van
Bergen.
Bommel
hooft.
Schut
nes
Klip
Wyfiers

The great VVarder.

Copper-wike.

Copper-naile.

Bochaven

Noton.

Sich-ſtream.

VVibrants eye.

The ſeventh Demonſtration.

In which

The Lieth of Berghen, and the north coaſt of Stemmes-Heſt are deliniated.

BEtwixt Schuyteneſſe & Bock goeth in the Liet of Bergen. Schuyteneſſe is about foure leagues long, at the ſouth end lye ſome ſunken rockes and fowle grounds; for to avoyd them comming in out of the ſea, you muſt keep the top of Bock a little without the point of Schuyteneſſe, and then you ſhal goe cleare of them; But if you bring Bock cloſe by or to the point of Schuyteneſſe, and ſaile ſo right in for to runne about cloſe by the point of Schuyteneſſe, you ſhal ſurely ſaile upon thoſe foreſayde ſuncken Rockes and fowle grounds.

From the ſouth-end of Schuyteneſſe, the Liet lyeth in
The great Warder. first north and north and by weſt two leagues to the great Warder, which is a road ſo called after four great Warders, which ſtand there thwart of it upon the land of Schuytenes, for the knowledge of this road: there lye cõmonly the ſhips that tarry for a wind, being bound either to the northwards or to the ſouthwards, there it is very good lying in five, ſix ſeven or eight fathom, as well for northerly as ſouthetly winds, you may alſo anckor to the northwards of the Warders about a point in five, ſix, eight, ten & twelve fathom, there you ſhal lye landlockt for ſoutherly winds.

Copperwike. A little to the ſouthwardes of the Wardes lyeth a Bay, called the Coperwyke, within it is alſo a good Haven for them which are bound to the eaſtwards, & alſe ſail with a w. wind: with a eaſterly or northerly wind, you ſhal not wel ſhift roads from thence or come out. At the comming in to this Baye lyes a ſunken rock, called the Coppernaile, upon
Coppernaile. it ſtandeth allwayes a great Pole, where by you may ſee to avoit it.

Without at the ſouth point of Schuytenes on the eaſt ſide is alſo a little Bay or two, where men may anckor.

Bochaven A little to the northwardes of Bock, on the eaſt ſide of the Liet is alſo a Bay, called Bockhaven, where men may come to anckor.

Al theſe roads, as alſo the copperwyke, are good for thoſe which comming from the ſouthwardes, by reaſon of contrary winds can not get to the great warder.

A little more ſoutherly then the Coperwyke, on the eaſt ſide of the Liet to the northwardes of the Bock, lyeth in north into the land, a Sound, which ſheweth it ſelf (when you come from the ſouthwardes) much broader then the right fare way, ſo that thoſe that are not there viry wel acquainted, ſhould not think otherwiſe, but that it was the right channel, and ſo ſhould lightly go up a contrary way. Therefore it is neceſſary & needful to ſail cloſe alongſt by Schuytenes, and not goe off from the weſt ſhore, until you come thwart of Kopperwike, then you ſhal be within the point of the foreſaid Sound.

Notou. About a great halfe league by north the great Warder, lyeth Notou, there ſtandeth a little white church and ſome houſes, thwart of it in the Bay is alſo good anckoring for northerly winds, and good road for them which are bound to the northwardes. Likewiſe it is good anckoring by north the poynt of Notou, for them which are bound to the ſouthwards. All moſt at the north end of Schuyteneſſe, is alſo a
Sichſtream. road, called Sichſtreame, where is alſo good lying.

At the north end of Schuyteneſſe lyeth a little Iland, when you ſayle up or downe the Lieth, you can ſee through betwixt them into ſea. At this Iland is alſo a good road under a rocke, or Iland, called Wybrants-eye, there it is good
VVibrants eye. Anckoring for al windes.

Betwixt that foreſaid Iland and the maine land, you muſt ſaile through a narrow ſtrait, which is but a little more then a ſhippes lengt broad; on the eaſt ſide where of, which is on the ſide of the maine land, there lyeth a little rock, or ſuncken rock, therefore you muſt ſaile cloſe by the weſt ſide that is cloſe alongſt by the iland for to avoyd the foreſaide rock.

From Wybrants-eye over the Bommel to the Blokx, the
the bommel. courſe is northnorthweſt, but firſt ſomewhat more weſterly about two leagues, betwixt them both it is on the Weſt ſide al broken land, great and little Ilands and rockes. About halfe wayes betwixt them both goeth a channel into ſea, where men doe ſayle much in & out, and it is cleane, broad, & wide. He that wil runne out there (comming from the northwards) may eaſily eſpye it, when he is a halfe league paſt the Blocx. On the weſt ſide lye two little Ilandes or great rockes, which ſhewe much greater then the other rocks, theſe you muſt leave on the larboardſide, and run out by them ſ.ſ.w. into the ſea.

He that wil runne in here out of the ſea, he ſhal (when he commeth to the end of Schuyteneſſe) ſee many little Ilands or rockes, he muſt ſaile paſt al theſe, until that he get ſight of thoſe foreſaid two great rocks, and then in by them leaving them on the ſtarboard ſide; & ſo he ſhal come ſom- The blocx
what to the ſouthwardes of the Blokx or Longholme into the Liet.

The Blockx are 2 rockes, lying very neare even with the water, which you muſt leave on the larboard ſide, in ſailing up, and runne cloſe alongſt by the eaſt ſhore, through betwixt the Blockx and Longholm. Longholme lyeth a longholm
little above the Blocx, within it is a good Haven, where is good lying. A little to the northwards of it lye 2 rockes more, thwart of them lyeth a ſuncken rock, which you muſt avoyd.

From the Blocx alongſt over the Bommel it is yet two leagues, firſt north, and then northnortheaſt, al alongſt by the land of Bommelhead, the ſouth end of this land is a high ſteepe point, called Bommelhead, to the ſouthwards of it
bommell-ſound. runneth a channel weſtſouthweſt into the ſea called Bommell-ſound. This channel is good for to know, comming in out of the ſea. The land of Bommelhead is about 4 leagues long, and the firſt long Jland to the northwardes of Schuyteneſſe, it is alto gether low plaine land except on the ſouth end, which is ſo ſteep a point, as if it were hewen right off with an Axe. About the middeſt between both ends of this Iland (on the ſea ſide) lyeth a very high rond hill, called Sick, of faſhion almoſt like a ſugerloafe or a mans hat, and Sick.
lyeth farre above al that low land, which you may eaſily ſee at both the ends of this Iland, and alſo further, where by it is very good to be knowne.

For to ſaile into this foreſaid channell out of the ſea, you muſt bring that ſteepe point of Bommell-head eaſt northeaſt, or ſomewhat more northerly from you, and ſaile then towards it. And then you ſhall leave a great many little Jlands and rockes on the ſtarboard ſide, and the foreſaide bommell-
point on the larboard ſide, and cloſe in about by it to the head. northwardes.

A little about this point of Bommelhead, on the Inner-ſide, lyeth a Haven, called Bommelhaven, there lyeth a rock before the mouth of it, and alſo a ſuncken rocke betwixt that rock and the north point of that Haven: He that will go in there, muſt go into the ſouthwards of the rock, in betwixt the ſouth point & the foreſaid rock, leaving the rock on the ſtarboard ſide of him. So ſoone as men art within the Haven, they muſt let fall their Anckor, within it is broade & wide, and men lye there landlockt for all winds.

At the end of the Bommell lyeth Munſterhaven in the
land of Bommell-head, on the weſt ſide of the Liet, even Munſter-
about the point. This is alſo a good haven for them which haven.
are bound to the ſouthwardes, and by reaſon of contrary

winds cannot get further, there ſtãdeth a litle white church thwart of it men muſt ancker in ten or twelve fathom.

Buelshavē

From Munſterhaven to Beulhaven it is north an Engliſh mile, there is alſo good anckoring for ſoutherly windes, further it is north ſomewhat eaſterly to Volger-roade, before it lyeth a little Iland, under it, or by it on the one ſide or other men may ancker for all winds. Men may alſo ſaile round about it, and run in and out at both ſides of it, if they will.

Volgher road.

From Munſter-haven to Bremer-holme the Liet lyeth north ſomewhat eaſterly about two leagues, there the Liet is devided into 2 parts, to wete, into the Old and the New Liet: The old Liet goeth through to the eaſtwards of Bremer-holme and the iland that lyeth to the northwards of it, but the new land alongſt to the weſtwards of it.

Bremer Diefholm.

The Olde Liet is not well to be uſed by them, which are not there very well acquainted, alſo great ſhips that draw twelve or thirteen foot, may not goe through there.

Old Liet.

Somewhat more then thwart of the middeſt of Bremerholme, in the narrow of the Old Liet, lieth a ſhowld wherupon is no more then thirteene or fourteene foote vvater. A little to the northvvardes of it on the eaſt ſhoare lyeth a bay called Jngeſound; vvhere is good anckering: there lyeth alſo a bay on the vveſt ſide, halfe vvayes betvvixt that forſayd ſhovvld & Bremerholm, vvhere men alſo may anker.

The nevv Liet is broad & deepe enough. Thvvart of Bremer-holme, in the farevvay, neareſt the vveſt ſide, lyeth a ſunken rock, where of you muſt take heed. For to avoyd it, you muſt marke the Iland before Folgher road. If you keep it ſo that you may ſee it vvithout the north-point of Folgher-roade, then you cannot come to neare that ſunken rock: but if you bring that Iland behind the foreſayd poynt, ſo that you cannot ſee it, you ſhall vvithout faile fayle right upon it; you muſt obſerue theſe marks as vvel in fayling up, as in fayling off.

New Liet.

Ruighe-holm.

In the middeſt of the New lieth Lyeth Ruigheholme, there men lye with ſhippes faſt unto two Rings: the one is upon the Jland, & the other upon the poynt to the northwards of it, where they bring out Cables too.

Redholm.

From the New Liet to the point of Rootholme it is northnortheaſt a halfe league, betwixt them both goeth out the Soltmerfioerd weſtſouthweſt into ſea, which is a fayre broad & large channel. On the ſouth ſide lye ſome ſunken rockes, but if you runne out amid the channel, you can take no hurt of them.

Soltmer-fioerd.

At ſea men doe knowe this Soltmerfioerd by that foreſayd high and round hil Sicke, which is very good to be knowne, & lyeth two leagues to the ſouthwards of it, about halfwayes betwixt this Sound & Bommel-ſound. The land on the ſouth ſide of Soltmerfioerd towards Sick, are ſmal white rockes, which you muſt leaue on the ſtarboard ſide, and runne in ſo amid the channel eaſtnortheaſt, and then you can take no hurt of thoſe foreſayd ſuncken rockes, lying on the ſouth ſide of this channel. There lyeth alſo a ſuncken rocke at ſea before this Sound on the ſouth ſide a little off from the north point of the land of Bommell-head, with hard winds out of the ſea, the ſea breaketh very much upon it, but it lyeth at leaſt 5 or 6 fathom under water.

When as you come in here, you haue Redholm on the larboard ſide, & you muſt run northeaſt alongſt by it, untill you come about the foreſayd poynt.

From the poynt of Redholme to the narrow it is north, & through the narrow northnorthweſt & north & by weſt at leaſt a halfe league. Jn this ſtrait it is ſo narrow, that you can but even turne through it on the vveſt ſide of the ſtrayt lyeth a little Iland, thvvart of it is good anker-ground in 13 & 14 fathom.

From the ſtraite to the Reine Knape the courſe is northvveſt, & by north tvvo leagues: this is a little Iland vvithout trees, cleane round about, vvhich you may ſayle about on both ſides.

Reine Knaep.

Thvvart of Reine Knaep on the eaſt ſhoare lyeth Deepeſound, a good haven for them vvhich are bound to the ſoutvvard, the mouth of it is narrovv, & alſo but three fathom deepe, but vvithin it is broad & large, and tvventy fathome deepe. Alongſt to the weſtvvards of the Rein Knaep it is broadeſt, to the eaſtwards lyeth a point, & by it a little Iland you may ſayle through betwixt the point & the little Iland. From the Reine Knaep to Bagholme the courſe is north & by eaſt a great league; betwixt them both ly ſome Ilands & rocks, all which you muſt leaue lying on the ſtarboard ſide, there you may at divers places ſayle through & within theſe Ilands & rocks, and at laſt come out againe by Bagholme into the Liet, but it is not to be done but for them that are there extraordinary vvel acquainted. Men might lightly get in amongſt theſe Ilands & rockes, ſo that they ſhould not know hovv to come out againe. At the eaſt ſide of Bagholm men may anker, but there ſhooteth off a little legde of rocks from the north end, whereof they muſt take good heed.

Deepe-ſound.

From Bagholme to Crab-kerke it is north about three quarters of a league, this is an indifferent haven for ſoutherly vvinds, but it is little, there can lye no more then two or three ſhippes.

Crabkerk

From Crabbe-kercke to Bock up Ra, it is north ſomevvhat eaſterly a league, betvvixt them both runneth out the Croſſe-ſound, or Cruyſvoert vveſtſouthvveſt, & ſouthweſt & by vveſt into ſea, vvhich ſound is very good to be knowne at ſea, by three hils (almoſt like the Drõmels on the eaſt ſide of Norvvay, but not ſo high) vvhich lye therabouts vvithin the land, vvhich are alſo called by ſome the north Drommels, vvhen they are northeaſt, or therabouts from you, then you are open before the Croſſe-ſound. Before the mouth of it lyeth a little Iland neareſt the ſouth ſide, from vvhich lye off ſome rockes to ſeawards, the broadeſt and largeſt channel is alongſt to the northwards of it you may vvel alſo ſayl through to the eaſtwards of the Iland betwixt it & the land, but there it is narrow, yet cleane & cleare without any dangers. When you are within it, you muſt goe in alongſt eaſtnortheaſt & northeaſt & by eaſt, & ſo ſhal come into the Liet againſt Cruyſenes, a little to the ſouthwards of Bock up Ra.

North-Drõmels.

Bock up Ra is a little Iland which you may ſayle about on both ſides, alongſt to the weſtwards of it is the common fare-way, & alſo deepeſt. When as you ſayle about to the eaſtwarde of it, & come to the north end of Bock, there it is very narrow, and there right in the fare-way (ſomwhat nearer the eaſt ſhore then Bock) lyeth a ſuncken rock, there ſtandeth alwayes a pole upon it, for to avoyd it, you muſt leaue it on the ſtarboard ſide, and run alongſt to the weſtwards of it. Betwixt this Rock and Bock it is no deeper then ſixteen foot. Right to the weſtwards thwart of Bock lyeth an other Iland, under it you may alſo ancker in Bockliet. To the weſtwards of this Iland goeth through the Cobbeliet, which men doe ſayle through with bare vvinds, or when they muſt turn through, becauſe it is broader then on either ſide of Bock up Ra.

Bock up Ra.

cobbeliet

From Bock to the Watting-ſtream it is north a league, there you cannot ſayle amiſſe. If you doe not ſayle againſt the land, for there lye no dangers, except at the weſt ſhore lyeth a ſunken rock cloſe by the land, wherupon remaineth at low water about 10 foot water. Vpon the end of Watting ſtream the courſe is northweſt about a ſhot of a caſt peece, or a quarter of a league, & then you come thwart of little Alefioerd, which is a haven on the weſt ſhore, where is good ankering both for a north & ſouthwind, under a high round Jland, where you ſhal lye land-lockt. From thence to the Reeſtone it is north about two leagues, betwixt them both on the weſt ſhore lyeth great Alefioerd, which is alſo a haven both for northerly & ſoutherly winds, twhart of it the fare-way is about two muſket ſhot broad. The Reeſtone is a rocke under water, lying by the point, where the two high hills ſtandeth, which men doe cal the Lethoorns, theſe are two high ſharp hilles, which men may ſee farre off, as they ſayle up or off that Lieth. Upon the Reeſtone ſtandeth alwayes a Pole, that thereby men may avoid it. You may alſo ſayl alongſt to the eaſtwards of it, but to the weſtwardes of it is broadeſt, & the right fare-way, over againſt it on the weſt ſhore lyeth Knorwyck, a haven where men may alſo ancker.

watting-ſtream.

Little Alefioerd.

Reeſtone.

Great Alefioerd

Lethorns.

knorwike.

From

VVercke-nes.

From the Reeſtone to Werckeneſſe the courſe is east-northeast about a quarter of a league, & then you leave the Iland Aſland lying on the larboard ſide to the northwards of you, it lye alſo two havens where you may alſo goe to ancker, the one called Struyſ-haven & the other Schoonhaven. To the weſtwards of Aſland you may ſayle to Jelteſioerd, & run out there about northweſt into the ſea.

Struys-haven. Schoon-haven. Jeltesioerd

When you come out of the ſea into Ielteſioerd, then you come into the weſtwards of Aſland againſt the Ree-ſtone into the Lieth.

Ielte-ſchaer

At the ſouth point of Aſland lyeth Ielteſchaer, a little round Jland or rock, whereupon ſtandeth a great Iron ring when as men com up the Lieth and with calmes are in danger to be driven with the current to the northwards along by Aſland, then they bring with the boat a cable faſt on it Men may wend round about the foreſaid rock without any danger.

Horneſſe.

From Werckeneſſe to Horneſſe, it is eaſt a little diſtance: when you come by it, you may ſee the towne of Bergen lye before you, you muſt Ancker before it in the Wage, in 11 12 or 13 fathom.

Harle.

To the northwards of Aſland lieth the Jland Harle, which is about five leagues long; when you come from the northwards, you may runne about it on both ſides, and ſo come into the Waghe of Berghen. The Harleſioerd goeth out about north & by weſt, and northnorthweſt betwixt Aſland & the land of Harle.

From Jelteſioerd, or the Waghe of Bergen, to Olde, the coaſt lyes northnorthweſt, and north & by weſt about 16 leagues, that is all brokē land, with many rocks, where men may ſaile through within them. The Norway Barkes come off from Stade all alongſt through that broken land and rocks, & within the Iland Harle unto Berhen.

Outweers

About foure leagues & a halfe to the ſouthward of Old, lyeth a great row of rocks, lying 3 or 4 leagues without the other rocks; thwart of from the ſhoare to ſeawards, called the Outweers.

Betwixt them & Old lyeth a good Haven, called Sourhfoort, there lye 3 Jlands before it, where men run in betwixt them both alongſt into the Haven.

Olde.

Olde is a high rock, a good wayes from the land, & looſe from the other rocks by the land, but hath ſome ſmall rocks lying about it, there lyeth alſo a row of rocks, a good wayes off from it ſouthweſt into the ſea.

About northweſt and northweſt and by north from Olde lye 2 rowes of rocks, where of ſome lye above and ſome under water. When as you are either to the northwards or to the ſouthwardes of Old, it doth ſhew it ſelfe with a great ſaddle, in 2 hommockes, and going downe round on both ſides, but being thwart off, or weſtwards from it, then it lyeth in one round hill, almoſt like Coll. You may (comming from the ſouthwards) runne in about the eaſtwards within Old, northeaſt to Oldeſound, & come out againe to the northwardes of Olde. Foure leagues to the northwardes of Olde-ſound lyeth Kyn, alſo a great rocke, which men may ſaile round about, and ſheweth it ſelfe with 2 ſharp Hommockes, allmoſt like a Cowes clawe, or Biſhops Myter.

Kyn.

VValdres Eaſterdal.

Betwixt Kyn & Olde goeth a great Sound into the land, upon which lye two towns, Waldres and Eaſterdal. Northweſt & by weſt from Kyn lye three or foure rocks, and alſo ſome ſuncken rocks under water. Southweſt and by weſt about 3 leagues off from it, lye alſo ſome rockes above, and ſome under water.

Ornael.

Three or foure leagues to the northwards of Kyn lyeth Ornael, alſo a great rock, which ſheweth it ſelf in one great high round Hill. Three leagues, or three leagues & a halfe to the northwards of it lyeth the ſouth poynt of Stade. But Ornaell & Olde lye about north & ſouth 7 or 8 leagues aſunder.

Stade.

Betwixt Ornael and the ſouth point of Stade goeth in a great broad ſound, from whence men may ſayle through within the broken land to the ſouthwards to Berghen, A little within the ſouth point of Stade is a Bay, where men may goe to anckor, thwart of a ſea-beacon, and lye ſheltred for a weſt winde. The land of Stade lyeth from the ſouth-

North point of Staden.

point to the north point north northeaſt, and ſ.ſ.w. which is a whole main coaſt but full cloſe alongſt by the ſhore, with many ſmall rocks, but none that men may ſayle about with in them for to have any ſhelter for the ſea. The Norway Barkes of all places to the northwards of it, yea and all thoſe which come off from the North Cape, can ſaile all alongſt the coaſt of Norway unto Berghen, through within the rocks, except thwart of this land of Stade, there they muſt run ſea-board through the ſea.

Havens on Stade

Between theſe two foreſayd poynts are alſo two little havens, where men may ride, but are little or nothing uſed.

Swynoe.

To the northwards of Stade the land lieth with many Ilands northeaſt to the broadſound eight leagues. About halfe wayes lyeth a little Jland or rock, called Swynoe (that is Hogges-Iland) a league fron land without the other Jlands of Flowach. When you are cloſe by the north poynt of Stade, & go on n.e. you run through within that little Jland Swynoe, but with a N. e & by north courſe about a ſeaboard of it.

Broad-ſound

He that is bound to Roemſdall, or into the Sounds of Sudmer, muſt runne into the Broad-ſound, which goeth in at the ends of the Jlands of Flowach eaſt & eaſt by ſouth, the outermoſt of theſe Jlands is called Haſſen. When you come to the end of thoſe foreſayd Jlands, you ſhall ſee eaſt from you about two leagues, a great high ſhort Iland, called Goeden, or of ſome Godſche-ſand, and a little to the ſouthwards of it, ſomewhat further in a great black rocke, of faſhion like a hay-cock, or almoſt like a ſuger-loafe, it is called by the ſaylers the Cookes-broad: ſayle in right with it, but bring not that foreſayd rock to or under that Iland, but keep it clear off without it: for els you ſhould ſurely ſayle upon the foreſayd ſuncken rockes, which lye vnder water at the north ſide of the broad ſound.

Goeden.

From the Jland Goedeu or Godſche-ſand runneth off alſo a little riffe, to the ſouthwards, or towards the ſoutheaſt from it. When you come by that Jland runne about by that little riffe, in betwixt it and foreſayd black rock, & ancker a little within that riffe, under Goedeu, runne not farre within it, for to avoyde a ſuncken rock, which lyeth ſomewhat further in, not farre from land, there ſtand two little warders upon the ſhoare, a little within the riffe, for know ledge of the roade.

Geſke

Behinde, or to the northwards of Goedeu lyeth the little Jland Geſke: upon it ſtandeth a little church on the ſouth ſide, before it men may alſo ancker in eight or tenne fathom cleane ground.

walderoe.

A little within Goedeu, on the eaſt ſide of Geſke lyeth another iland, greater then Geske, called Walderoe, on both ſides of the ſoutheaſt poynt of that Iland men may anckor in good cleane ground and lye land-lockt for all windes.

From thwart of Geſke & Walderoe lyeth a great multitude of Rocks northweſt ſo farre into ſea, that comming a ſeaboard alongſt by Swynoe with a northeaſt courſe, you ſhould farre within them.

He that comming from the northwards may ſayle by weſt alongſt by theſe rocks to Goedeu, & leaue the foreſayd ſuncken rocks (lying on the north ſide of the Broade found) on the ſtarboard ſide of him, & runne in about by the poynt of Goedeu, as hath been before ſayd.

You may alſo run in to the northwards of Godeu, to wit in betwixt Goedeu & Geſke, & ancker within Geſke, or nnder Walderoe, but it is not wel to be done, but for them which are there verie well acquanted.

There lye manie Rocks, ſome aboue, & ſome under water, whereof men muſt take heede. In at the Broade ſounde is the beſt & ſureſt.

For to runne from Walderoe to Roemſdale, goe on the the northwards, alongſt by the great Jlands Luycko, it is in that farewaye, ten, twentie, fortie, ſixtie. & eightie fathom deepe, but even paſt Luycko runneth a ſtone riffe thwart over the farewaye, on againſt the point of the maine land, you muſt thereabouts edge off from the Iland on the larboard ſide, & runne indifferent cloſe alongſt by that poynte of the mayne land on the ſtarboard ſide, & then you

runne

runne over the deepeſt of that Stoneriffe, to wete, in three fathome or thereabouts, as ſoone as you ſhall be over it, it is againe verie deepe, of tenne, twentie, and preſently an hundred & two hundred fathom. Runne on ſtill by the land on the ſtarboard ſide, & verie cloſe alongſt by it, & leaue all the Ilands lye on the larboard ſide, & ſo you ſhal come unto the River of Roemſdale.

Towards the ſoutheaſt from the foreſayd Iland Goedeu or Godſche ſand goeth a great deepe river into the land, to Sickule, Honighpale, and other lading places more.

Luco, Luyck-ſound. To the northwards or northeaſtwards from Geſke lye (amongſt a greate manie other rocks and little Ilands) fiue greate Ilands: the firſt called Luco, which is a high Iland, like as alſo the ſecond, betwixt theſe two goeth in a chanel about ſ.e. called Luyckſound.

Harmſoe. Upon the third called Harnſoe lyeth alſo a high hil, but is at both endes ſomewhat lowe.

Lemſoe. The fourth & ſmalleſt called Lemſoe or the lowe Jland ſheweth it ſelfe in 2 or 3 lowe hommocks.

Flemſeu. The fift called Flemſeu, or the Iland, is a greate and lowe Iland, but ſeemeth little to ſee to at ſea, becauſe there lyeth but one hommock upon it (not verie greate) & of faſhion as the roof orcabben of a Hoye, or the w. end higheſt; within the e. poynt of that Iland is a good roade in a bight, where men lie landlockt for all winds.

Koofe Iland. To the northwards or eaſtwards of Flemſeu or the Roofe Iland, goeth in a channell called Nogwe Fioert, lying in eaſt & by ſouth, at which men may runne in to Roemſdale.

Roëſdales Schares Without theſe foreſaid Ilands off from Luco unto Boede lyeth a great multitude of outrocks, great and ſmall, called the Roemſdales ſhares.

Lever. Eaſtwards from the Roofe Iland, or Flemſeu, lyeth (amongſt other rocks & little Ilands) the iland Lever, which men may ſayle about on both ſides, either whether they be bound outwards from Roemſdale to Bereſound or Boe, or inwards from Boe or Boreſound, and will runne through the foreſaid Ilands.

Bereſound Bereſound is a Haven within ſome rockes even to the ſouthwards or Weſtwards of the point Boe, there it is good lying, but not good to come into without a Pilot, or ſom one that is there well acquainted.

Boe. Boede is an out-point, with a neck or ſmall point of land, faſt to the maine land, alongſt to the ſouthwards of it men may runne in and up, to the ſouthwards to Bereſound, or els goe to ancker in a bay on the north ſide behinde Boe, by ſome honſes, where they may lye ſheltred for a weſt-winde.

From Boe to Stemneſheſt, the coaſt lyeth about n. e. two leagues, betwixt them both about half wayes lye many ſmal lowe black Out-rocks, as if they were ſowne alongſt the ſhoare, called the Stoppels, betwixt them and the maine land you cannot ſayle through with great ſhippes without great danger. The Norwaye Barckes runne alongſt with in them, and alſo ancker there within, under a rock, which is ſomwhat greater then the reſt, & lyeth about the middſt of the Stoppels (or ſomewhat nearer the main land) called the Eartholm.

Stoppels. All the Jlands betwixt Broad-ſound or Flowach & Boe, belong nnder Roemſdale.

How theſe lands doe lye one from the other, and from other lands

From Schuytenes to Bommelshead n.n. w. ſomewhat northerly. 7 leagues.
From Bommels-head to Cruyſoort n.n.vv. 9 leagues.
From Cruyſoort to Harle n.n.vv.
From Schuytenes to the Outſeers weſt, & vveſt & by north 4 leagues.
From the Outſeers to Jelteſioerd, or the wage of Bergen north & by weſt 26 leag.
From Schuytenes to the Flye ſouth and by eaſt ſoutherly 106 leagues.
From Schuytenes to the Teſſell, ſouth and ſouth & by eaſt 112 leagues.
From Schuytenes to Walcheren ſouth 122 or 134 leag.
From Schuytenes to the Holms before Yarmouth ſouth & by weſt, or ſomewhat more weſterly 113 or 124 lea.
From Schuytenes to Flambrough head, ſ.w. & by ſouth 104 or 105 leagues.
From Schuytenes to Tinmouth the courſe is ſouthweſt 104 leagues.
From Schuytenes to Boeckenes weſt & by ſouth ſoutherly 72 leag.
From the Outſeers to the Flye ſouth & by eaſt 103 or 104 leagues.
From the Outſeers to the rocks Outweers north & by weſt 40 leagues
From Ielteſioerd or the Waghe of Berghen to Hitland weſt 48 leagues.
From Ielteſioerd, or the Waghe of Berghen, to the North-end of Hitland weſt & weſt & by north 50 leag.
From Schuytenes to Hitland weſt and by north, and weſt northvveſt, 66 leag.
From Schuytenes to the north end of Hitland vv.n.vv. ſomvvhat northerly 71 or 72 leagues.
From Ielteſioerd or the Waghe of Bergen to the Rocks of Outvveers, north northvveſt, and north & by vveſt about 11 or 12 leagues.
From the Outvveers rocks to Old, n n vv and north and by vveſt betvvixt 4 & 5 leagues
From Olde to Cyne north and by eaſt, and northnortheaſt 4 leagues.
From Olde to Ornael north, and north and by eaſt 7 or 8 l.
From Ornael to the ſouth point of Stade northnortheaſt 3 leagues.
From the ſouth point of Stade to the north point, n n e. 8 leagues.
From the north point of Stade to Swyno or ſwynooſt north eaſt, & northeaſt & by north 4 leag.
From Swynoe to the outermoſt of Flowach, or the broade ſound, northeaſt & by eaſt 4 leagues.
From the north point of Stade to the Iland Heſſen, or the Broade-ſound northeaſt 8 leagues
From Heſſen to Goedeu eaſt, and eaſt & by ſouth 3 leag.
From Swynoe alongſt without the Roemſdaels ſchares to Boede, the courſe is n.e. & by north
From Stade to the north-end of Hitland weſt ſ.w. 69 leag.
From Stade to the eaſt point of Iſland weſt northweſt 200 leagues.
From Stade to Greeneland northweſt about 330 leag.

Of the Tydes and courſes of the ſtreames.

Betwixt Berghen and Stade the water riſeth & falleth, but it keepeth no certaine tydes ſouthſouthweſt, & northnortheaſt moone maketh there moſt full ſea.

Betwixt Stade, Luyckeſound & Boe a ſ.ſ.w. & n.n.e. moon maketh high Water.

Heights.

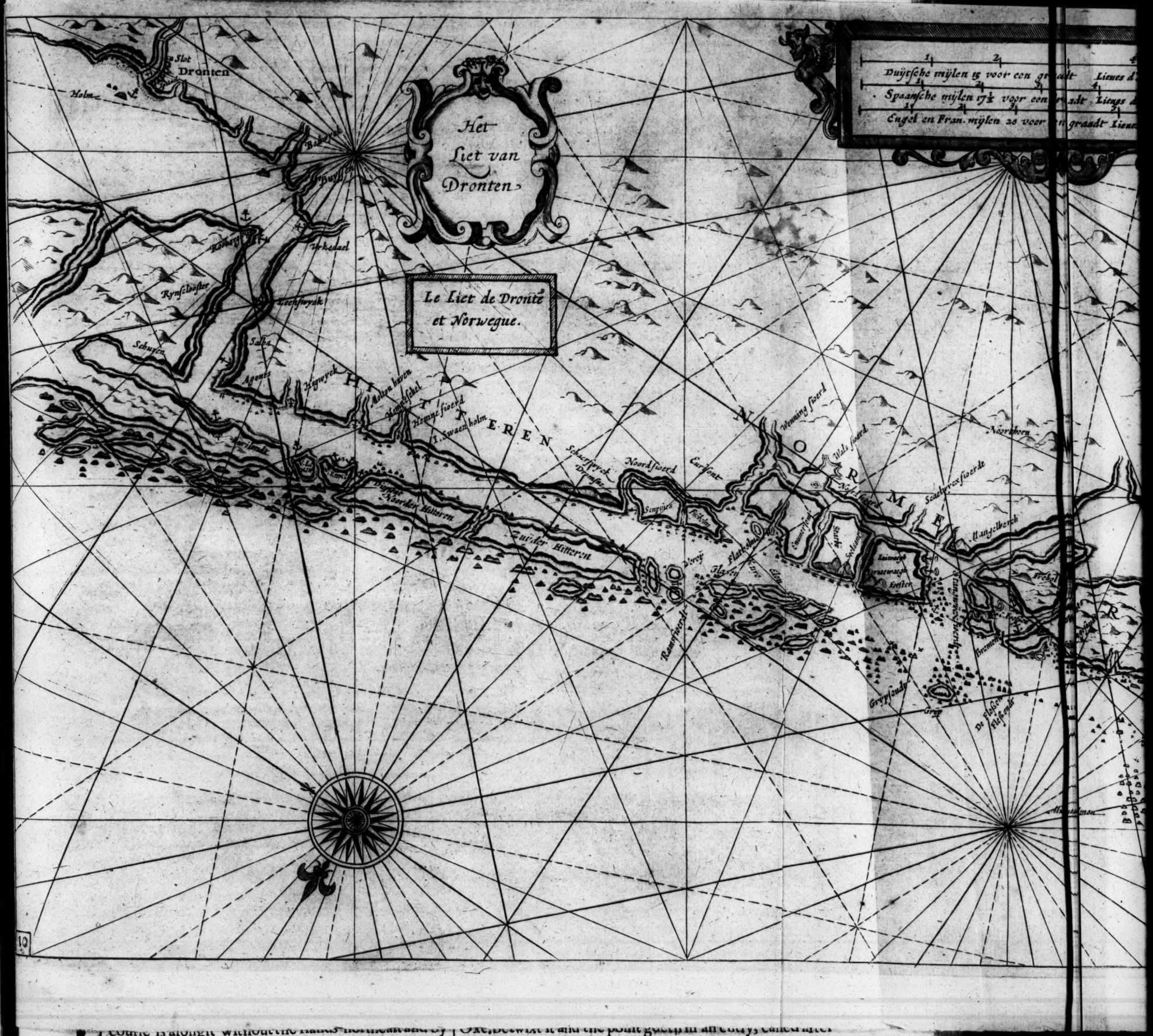
The Outweers-rocks lye in 61 degrees.
The Iland Kyne in 61 degrees & 30 minutes.
Stade in 62 degrees.
Broad-ſound or the Iland Goedeu, in 62 degrees, & 30 minutes.
Luyckſound in 62 degrees & 40 minutes.
The Stoppels & Boede in 63 degrees & 28 minutes.

Hol

How theſe lands doe ſhew themſelves at Sea.

Thus ſheweth the Boek, when you are to the ſouthwards of Schuytenes before the Liet.

Thus ſheweth the Sick, when you are to the northwards of Schuytenes.



Fcourſe is alonght without the Hands Northeaſt and by North about ſix and twenty leagues, the Land betwixt them both is called the Government of Roemſdale.

Stemmes-Heſt. Stemmesheſt is a high point good to be knowne, it ſheweth it ſelfe (when as you get ſight of it, comming from the ſouthwards or the weſtwards) in two Hommocks thwart of it goeth in the Liet, with divers entries.

About a ſhot of a caſt peece from the poynt lyeth a black Oxe, betwixt it and the point goeth in an entry, called after the foreſaid rock, alſo the black Oxe) northeaſt and by eaſt, Black Ox it is not very wide, and upon the ſhowldeſt 4, or 5. fathom deep at low water, the nearer to the Oxe the deeper, and the nearer to the maine land the ſhowlder water.

A little within the Rocke, (the blacke Oxe) lyeth an other great Rock or Iland, pale of colour, called White-holme, which you muſt leave (in ſayling) alſo on the lar-board ſide, you cannot ſayle through betwixt it and the black VVhite-holme.

runne over the deepeſt of that Stoneriffe, to wete, in three fathome or thereabouts, as ſoone as you ſhall be over it, it is againe verie deepe, of tenne, twentie, and preſently an hundred & two hundred fathom. Runne on ſtill by the land on the ſtarboard ſide, & verie cloſe alongſt by it, & leaue all the Ilands lye on the larboard ſide, & ſo you ſhal come unto the River of Roemſdale.

Towards the ſoutheaſt from the foreſayd Iland Goeden or Godſche ſand goeth a great deepe river into the land to

From the Outſeers to Jelte fioerd, or the wage of Bergen north & by weſt 26 leag.
From Schuytenes to the Flye ſouth and by eaſt ſoutherly 106 leagues.
From Schuytenes to the Teſſell, ſouth and ſouth & by eaſt 112 leagues.
From Schuytenes to Walcheren ſouth 122 or 134 leag.
From Schuytenes to the Holms before Yarmouth ſouth & by weſt, or ſomewhat more weſterly

round in 62 degrees & 40 minutes.
e Stoppels & Boede in 63 degrees & 28 minutes.

Hol

How theſe lands doe shew themſelves at Sea.

Thus ſheweth the Boek, when you are to the ſouthwards of Schuytenes before the Liet.

Thus ſheweth the Sick, when you are to the northwards of Schuytenes.

The land about Northfoert and Southfoert, when it lyeth east and by south from you.

Thus ſheweth the Ilands Ornael, Kyne, and Olde, to the ſouthwards of Stade.

When the ſouth point of Stade lyeth northeaſt and by north from you, then it ſheweth with the land from thence ſouthwards within Ornael, Kyne, and Olde, like as it is portrayed in this and the figure following.

This followeth the former figure.

When the point of Stade lyeth ſ.ſ.e. 8. leagues from you, it ſheweth thus.

When Stade is ſouthſoutheaſt from you, and Goedou east 4. leagues, then the land betwixt Stade and the Broad ſound ſheweth like as is portrayed in this and the figure following, and then you are open before the Broad ſound.

This followeth the former figure unto Stade.

Thus ſheweth the point of Stemmesheſt or Heynſt.

The forme of Iland Luycko, when it is east and by north from you.

Thus ſheweth the Iland Goedou, being east from you

Thus ſhew the Ilands of Roemſdale, when the middlemoſt of the three higheſt and the weſtermoſt is ſoutheaſt from you about 3. leagues.

Thus ſheweth the land betweene Stemmeſheſt and the Broad-ſound, when as you ſayle a ſeaboard, alongſt by the Roemſdales Ilands and Schares.

The eight Demonſtration.

Wherein

The Liet of Dronten is shewed.

FRom Stade to Stemmeſheſt (or Stemmeſneſſe) the courſe is alongſt without the Ilands northeaſt and by North about ſix and twenty leagues, the Land betwixt them both is called the Government of Roemſdale.

Stemmes-Heſt. Stemmeſheſt is a high point good to be knowne, it ſheweth it ſelfe (when as you get ſight of it, comming from the ſouthwards or the weſtwards) in two Hommocks thwart of it goeth in the Liet, with divers entries.

About a ſhot of a caſt peece from the poynt lyeth a black round rock altogether alone, not very great, caled the black Oxe. Betwixt it and the point goeth in an entry, called after the foreſaid rock, alſo the black Oxe) northeaſt and by eaſt, it is not very wide, and upon the ſhowldeſt 4, or 5. fathom deep at low water, the nearer to the Oxe the deeper, and the nearer to the maine land the ſhowlder water. Black Ox

A little within the Rocke, (the blacke Oxe) lyeth an other great Rock or Iland, pale of colour, called White-holme, which you muſt leave (in ſayling) alſo on the larboard ſide, you cannot ſayle through betwixt it and the black VVhite-holme.

Suncken rock. Oxe, becauſe from the one to the other it is all full of rocks ſome above and ſome under water.

A little within or to the end of Whiteholm lyeth a ſuncken rock, which you muſt leave alſo on the larboard ſide.

In calm weather or ſmooth water you cannot well ſee it, but when it doth blow any thing hard, you may well perceive it by the breaking of the ſea upon it. On the ſtarboard ſide within Whiteholme, lyeth a great multitude of rocks, as if they were ſowed along the ſhoare, amongſt theſe rocks a litle within or to the eaſtwards of the point of Stemmeſheſt lyeth Smeerholme, an iland, where men may ride under, and lye ſheltred for all winds, except with eaſt and northeaſt winds, which blow there in open, with thoſe winds you cannot alſo come out there, neither with ſouth ſoutheaſt, ſouth, ſouthſouthweſt, and ſouthweſt windes, you cannot alſo come in there. You muſt ſayle in there from the northwards, behind the Iland. In the going in (which is not above a cables length broad, and eight or tenne fathom deepe) lyeth a little round rock, at high water, about a fathom above water, by which you may runne about on both ſides.

Smeerholm.

Northnorthweſt about halfe a league from the black Oxe lyeth alſo a greater and broader, but a lower rock, called the Voghel, which at high water lyeth a little above water, but with a ſpring the ſea runneth alongſt over it. Betwixt it and the black Ox there ſeemeth to lye in a broad and wide channell, but betwixt them it it full of ſuncken rockes and foule grounds under water; when it is ſmooth water, it is in no wiſe good to run in there. but in foule weather and with a grown ſea, and that you canot do otherwiſe, you might run in there by the breaking of the ſea.

The vogel

A great halfe league northnorthweſt from the Voghel lyeth ſome rockes, lying to the eaſtwards, called the Newholmes, betwixt them and the foreſaid Rock the Voghell goeth in a broad and large channell, very cleane without any dangers, (which after the rock is alſo called the Vogell, there men may ſee all that can doe hurt. The markes for to finde this channell) comming out of the ſea are two hils, very good to be known, which lye from thence eaſt and eaſt and by n. within the land. The weſtermoſt is a hill ſomewhat low and round of faſhion, almoſt like a flat hat, called the Clapmuts. The eaſtermoſt is a high ſteepe ſharp Hill, above on the one ſide with a Cutte, like as a ſteepe; called Manghelburgh. When theſe are one in the other, then they are about e. and by north from you, and then you are alſo right open before this channell.

Mew-holms

Clap muts & Mangelbergh

For to ſayle in there, keepe theſe two foreſayd hills one in the other, and ſayle in right with them eaſt, and eaſt and by north, or (when as you come within the Vogell) ſomewhat more eaſterly, ſo that you have the foreſayd Hilles out a head a little on the larbord ſide, untill that you come by the main land, and then eaſtnortheaſt alongſt by the ſhoare, (if you bee bound to Dronten) unto the Iland Edou or Edoe.

About a league within the Vogell lye two Rockes, the weſtermoſt is high and ſomewhat round, the other is low and alſo round, and lyeth to the eaſtwards from the firſt, towards the land, you ſhall runne with the aforeſayd courſe of eaſt and eaſt and by north off from the Vogell, about a ſhot of a caſt peece alongſt to the ſouthwards of the two Rocks. About halfe wayes betwixt them and the Vogell, (but neareſt the 2 rocks) lye two ſuncken rocks, theſe you leave with the ſame courſe alſo on the larboard ſide, you may ſee the ſea alwayes breake upon them, except in very ſmooth water.

Two ſunken rocks.

You may alſo ſayle through betwixt theſe two foreſayd Rockes and the Mewholmes, to wit, alongſt to the northwards of the rocks, untill you come into the Liet, leaving theſe 2 rocks on the larboard ſide, and the Newholms on the ſtarboard ſide.

For to come into the Liet alongſt to the northwards of the Mewholms

Alongſt to the northwards of the Mewholmes and thoſe two foreſayd Rockes alſo a channell where men may ſayle through into the Liet, then you muſt leave theſe two rocks to the ſouthwards on the ſtarbord ſide, and ſome other rocks to the northwards of them on the larboard ſide, & ſo come alſo into the Liet.

About three quarters of a league within theſe two foreſaid Rock, lyeth a great ſuncken rock, right in the middeſt of the fareway, which breaketh alwayes, and at low water is uncovered, about which you may ſayle on both ſides. From this ſuncken rock to *Sweggeſound*, the courſe is eaſt, and eaſt & by n. a league, but the Vogel or black Oxe & Sweggeſound are diſtant about 3. leagues.

Sweggeſound is a little Haven behind three great Rocks, with a little Iland of an Engliſh mile long on the eaſt ſide of it, when you ſaile alongſt by it, being but a little off from the ſhoare, you cannot diſcerne this iland from the maine land, but it ſeemeth to be all whole land, he that is not there very well acquainted, cannot perceive that to bee an iland, before that he come cloſe to it, for to run in behind it. You may ſaile into *Sweggeſound* either to the eaſtwards of that Iland, or to the weſtwards of it, according as the wind will ſerve. To the weſtwards of *Sweggeſound* or the 3. foreſaid rockes, at the w. end of the end of the foreſaid Iland lye a great multitude of rocks and foule grounds.

Sweggeſound

For to ſaile into the weſter channell, you muſt leave them all on the ſtarboard ſide, and runne in betwixt them and the 3. foreſaid rocks: when you come to the end of theſe 3 rocks you muſt looff up to the ſouthwards about by them towards the northeaſt or north, and anckor therein in 7 or 8. fathom, there you ſhall lye landlockt for all winds, but with a ſtorme out of the weſt the growne ſea can come in rowliug there through. You may alſo ſaile in further behind the rocks, untill you come in behinde the foreſaid iland in a little narrow Bay, there men doe lye in two fathom and a halfe, or 3. fathom, and alſo ſheltred for all winds. In this Haven of Sweggeſound the ſhips commonly doe lye there to tarry for the wind. He that is bound to the weſtwards, may run out to the ſouthwards of the 3. foreſaid rocks, and he that is bound to the eaſtwards, may ſayle out to the northwards, through betwixt the land and the iland, but that channell is very narrow and not above 2. fathom deep.

A halfe league to the eaſtwards of Sweggeſound lieth the Haven of Bremſnes, a little quarter of a league within it, on the ſtarbord ſide ſtandeth a little Church, with ſome houſes, which you ſhall eſpy behinde a point, when as you are come ſomewhat within, there dwelleth the Governour of Normer Leen. Men were wont to come to an anckor there to pay cuſtome, but now the Kings Cuſtomer dwelleth over againſt it in little Foſſen; ſo that now at this preſent, men may either go there, or to little Foſſen for to pay there cuſtome, according as occaſion doth ſerve.

Bremſnes.

For to anckor before Bremſnes, you muſt looke out for two beakons, which ſtand by the Church upon the water ſide, thwart of the innermoſt is the beſt Roade, and alſo the beſt ground, let your anckor fall there, in twenty, fifteene, eight, or tenne fathom, that is neare by the ſhoare, for there it is very ſteep riſing ground, and make you faſt with a hawſer to the beakons, there you ſhall lye landlockt for all winds, you may not alſo anckor no where thereabouts, then in the foreſaid place, by reaſon of the great depth, and very ſteepe grounds.

Little Foſſen or Foſſound is a narrow haven, lying to the northwards, over againſt Bremſnes, betwixt 2 lands. In theſe two places lie the ſhips commonly to tarry for the wind, they that are bound to the eaſtwards before Bremſnes, and they that are bound to the weſtwards in little Foſſen. Men may alſo ſayle from Foſſen to the eaſtwards, through betwixt the foreſaid land, and come into Stangwixfioerd again in roome into the Liet of Dronten, but it is a very narrow channell, and not well to bee done for them which are not there very well acquainted.

Litle Foſſound

Weſt n. weſt from the Haven of Bremſnes goeth a Channell through the rockes called Fleſſound, after three round Rockes, called three Fleſſen which lye in a row without the eaſt ſide of this Channell, and thereby is very good to bee knowne. A little within the three Fleſſes, lyeth a great black flat rocke, when you are by or in the Havens-mouth of Bremſnes it lyeth weſtnorthweſt, or ſomewhat more northerly from you. For to runne out from thence at that channell, ſaile right with the aforeſaid black rock, and runne to the ſouthwards of it cloſe alongſt by it, leaving it and the

Fleſſound

Three Fleſſen.

Fleſſes

Fleſſes on the ſtarboard ſide, (to the northwards of this flat rock & the Fleſſe it is al full of rocks, ſome above and ſom under water) you ſhall then leave on the larboard ſide of you, two other round rocks, which you ſhall ſee lye about a ſhot of a caſt peece eaſtnortheaſt, or northeaſt & by eaſt one from the other. When you are come without the Fleſſes, you ſhall be without all the rocks, but ſomewhat to the weſtwards of them lyeth a great row of rocks, lying weſtnorthweſt a good wayes into ſea, you may runne weſtnorthweſt alongſt by them unto the end: when you are come without the Fleſſes you may ſet your courſe ſomwhat more northerly, ſo to get ſea room betimes. In this foreſaid channell there is no danger, that can hurt you, but you may ſee it. In the offing you may know this foreſaid channell, by the foreſaid three Fleſſes.

The markes for to finde Fleſſound, comming in out of the ſea, are two high Hills, the one called Freeckoll, lying upon an Iland, towardes the ſoutheaſt, not farre from Bremſnes, the other called Northorne, lyng fare within the land. Freekol is a hill with two hommocks where of the ſouthermoſt is the ſmalleſt & loweſt. Northorne is a hill much higher, with a ſharp toppe, and lye alwayes white, covered with ſnowe. When this hill & the foreſaide ſouthermoſt Hommock of Frekoll ſtand one in the other (then they are ſoutheaſt & by ſouth from you) and that you ſaile in right with then, you ſhal without fail fal right opē before Fleſſond It is a channell of a ſhoart inlet, ant very commodious, as al ſo Grypſound for them which comming from Dronten, Edou, or any other place in the Lieth, and before night cannot ſaile to the channels of the black Oxe or Vogel, for to runne through them into ſea.

About a quarter of a league to the eaſtwardes of Bremſnes lyet Stang wyxfioird, a large broad ſound, at the eaſt point lyeth a great many rocks, within lyeth a Haven, called Hamerſound, you may not com in there but wit a Pilot except you be there extraordinari well acquainted.

A quarter of a league within that foreſaid point, on the north ſide of Stangwycxfioerde lye two lade-places, Iorian wach & lynwach, men runne in there to the northwardes, behinde ſome rocks, but it is al ſo Pilots water.

Towards the ſoutheaſt from Iorianwagh, men may ſaile farre within the lant, into many divers ſounds, Stangwixfioird, Schaelwicxfioird, Northfioird, Walsfioird, Wenningfioird, and other more. Upon the lande of Iorianwagh lyeth the mountaine of Toeſter, in 2 hilles, to the eaſtwardes of it upon the next land lyeth the mountaine of Stadebuye, alſo in 2 hills, as Toeſter. Theſe hills of Toeſter and Stadebuy, when you come from the weſtwardes alongſt the Liet, lye right behinde one the other, and ſeeme then to be no more then one hill, but being thwart of them in the Liet, or at ſea, each ſheweth in 2, which is together foure very high hils, and are commonly called together without difference Toeſter Poeſter.

Betwixt Toeſter & Stadebuye runneth through a narrow Sound, into the Northfioird, called Soolſound. To the eaſt of Stade-buye runneth alſo another ſound through into the Northfioirde, called Emmerſound, within which on the north ſide, cloſe by the northfioird is a lade place, where men do lade good deales.

A quarter of a league in the Liet, to the eaſtwards of Emmerſound, runneth in another ſound, at the entrie broade & wide, within it divideth it ſelve into 2 partes. Saylng in there you muſt leave Fiſholme and the Yellowe Iland on the larboard ſide, and a rockie Iland, called the flat Iland, with manie Rocks on the ſtarboard ſide. The Yellow Iland is not wel to be diſcerned from the main land, for thoſe which are not there wel acqnainted, the end of the Northfioird runneth there about behind it & maketh it an Iland. The Norwayebarkes runne much thereabout behinde it. To the ſouthwards of the flatte Iland lyeth a Rock or little iland, called Flathome, betwixt them both is good ancke-ring in 10 or 12 fathom, landlockt for all winds.

Through this Sounde men doe runne into Eurſound, a ladeplace lying in the Northfioird, there ſtandeth a little church on the weſt ſide of the flatte Iland. Betwixt the little Iland is alſo a good haven, where men may lye in three, foure and five fathome, it is not broade but cleane. To the eaſtwards of this Yellow Iland lyeth the high land of Dromſnes. From thence eaſtwards, further up into the Liet, towardes Dronten or Agenes it is moſt all whole land, & not ſo broken, as to the weſtwards of it. Dromſnes

Thwarte of the rocks of Hammerſound (lying on the eaſt ſide of Stangwyxfioird) lyeth a faire channell called Grypſound, one of the beſt channels for to come in out of the ſea into the Liet, it is aboute a quarter of a league broade, and goeth in cloſe to the eaſtwardes of the Iland Grype.

Grype is a little rounde Iland lying from the Voghell northeaſt & by eaſt diſtant aboute ſeven leagues, upon it dwell manie Fiſhermen, which goe from thence to ſea, to fiſh upon divers bancks, of fortie, fiftie, ſeventie, eightie, & hundred fathome, foure, five, ſixe, ſeven, eight & ſome tenne leagues without the land, which they knowe to finde by markes on the ſhoare. On the north ſide of Grype there lye but two or three rocks cloſe to the ſhoare, ſome ſaye that thereabouts is acker grounde in twelve fathom. On the ſouth or weſt ſide it is full of Rocks, but they lye moſt above water. Aboute halfe wayes betwixte Grype & the three Fleſſes, ſomewhat without all the other Rocks, lyeth a ſuncken rock a little under water he that runneth alongſt without theſe rocks, muſt be mind full thereof. Gryp.

For to goe into Grypeſound comming in out of the Sea, you muſt bring the high Mountain of Toeſter poeſter eaſtſoutheaſt from you, & ſayle in right with it, & ſo you ſhall not ſayle to runne in ſight of the Iland Gryp, which is good to knowe from the other rocks, by the greate manie Fiſhermenes houſes, which ſtand upon it, & upon no other Iland nor Rocks thereabouts, leave that Iland on the ſtarboard ſide, & goe in firſt eaſtſoutheaſt right with Toeſter, being paſt the Iland Gryp, bringe Toeſter two poynts on your larboard bowe, & goe ſo in ſoutheaſt, & you ſhall come into the Liet betwixt Hammerſound & Toeſter. From thence to the little Iland Edou are about foure lēagues. About three leagues to the weſtwardes of it, or a league to the eaſtwards of Grypſound in the Liet, lyeth alſo a ſuncken rock, almoſt even with the water, & almoſt amidſt the farewaye, neareſt the north ſide, you may alwayes ſee the ſea breake upon it, leave it on the larboard ſide, & runne to the ſouthwards of it, there it is broadeſt, you may for neede run alſo to the northwards of it through betwixt it & the other rocks, but it is there narrow. Gripſound. Edou.

Edou or Edoe is a ſomewhat low plain Iland, a league long, & verie narrow, which is the firſt land ont the larboard ſide, upon the Liet, that men have ſhelter of from the ſea, to the weſtwardes of it, there is noting but broken land, Rocks & little Ilands, where the growne ſea commeth rouling in through. Not farre from the weſt end, upon the ſouth ſide of Edou, ſtandeth a little white church, thwart of it, or a little to the eaſtwards of it, men may ancker in eight, nine, tenne fathome. The ſhoare is ſteep ryſing ground: If men doe come neare it in foure fathome, they ſhall be preſently faſt, but the grounde is ſoft. When as men come from the weſtwards, & will ancker there, they muſt (comming neare the weſt end of the Iland) continually feele with the leade for the ancker ground, & ſo ſoone as they feele it, let fall their ancker, thwarte of the a foreſayde little white church, or a little to the eaſtwardes of it, ſo that the little church come to ſtand over the houſes. When as men let fall their ancker in tenne fathome, & wending up towerds the land, verie out the cable then the ſhippe ſhall come to lye there in ſixe fathome the Liet is thereabouts aboute a halfe league broade. Edou.

Upon the eaſt end of Edou is alſo a little haven called Kurow, & it is ſo little that there can lye no more then two or three ſhippes, there lyeth a little black rock not farre from the ſhoare, men doe runne in betwixt that little rock and the Iland, & ancker betwixt them both, there men lye landlockt for all winds, but the ground there is not cleane. Kurow.

At the eaſt end of Edou lyeth another Iland ſomewhat laug, Glaſen.

lang, called Glaſeu. To the eaſtwards of it runneth a great broade Sound into ſea, called Ramſſioird, but it is known of few. With northerly winds there commeth through a great growne ſea into the Liet.

Ramſſioird.

Highland. of Hitteren

To the eaſtwards from Ramſſiorde lieth the land of Hitteren, two greate long Ilands, Norther Hitteren, & Souther Hitteren, together about ſeven leagues long, ſo that he that ſayleth up the Liet thwarte of them, can not perceive otherwyſe, but that he ſayleth in betwixt two maine lands

VVeroy.

At the ſouth end or weſt end of Hitteren, which is on the eaſt ſide of Ramſſioird two little Ilands, called Weroy, there you may ſail in betwixt them, & anker in good white ſand ground, you may alſo ſaile through betwixt the little Ilands, alongſt into the Liet, & thē you leave an ſuncken rok lying on the ſtarboard ſide, by the ſouthermoſt little Iland.

Dromſnes.

From the Iland Edou to the Highland, or the pointe of Dromſnes it is northeaſt & by eaſt & eaſtnortheaſt diſtand about three leagues. To the weſtwards of that poynt, to wete, betwixt that poynt & the land to the weſtwardes of is called Schipnes, lyeth a haven called Schaerſwycke. In the mout of this haven, aboute the middeſt of the channel, but ſomewhat nearer Schipnes then Dromſnes, lyeth a ſuncken rock, which faleth drie at low water, you may runne in aboute it on both ſides. A little within the poynt, on the ſouth ſide ſtandeth a Countriemans houſe, before which you may ancker in five, ſixe or ſeven fathom, cleane riſing ground, which you may come neare by your leade. This haven lyeth about a league more to the eaſtwards, thē Ramſſioird, on the ſouth ſide of the Liet, fitte for to come to ancker in, for thoſe which can ſayl no further by day. To the weſtwards of this foreſayd haven Schaerſwyke alongſt the land of Scipnes, lye manie Rocks by the ſhoare, ſome above & ſome under water, therefore you muſt ſomewhat ſhunne the ſouth ſhoare thereabouts, but the north ſhoare alongſt by Hitteren is verie cleane. The Liet is therebouts a great halfe league broade.

Schaers-wyke.

Lexen.

Aboute five leagues to the eaſtwards of Schaerſwycke, on the north ſide of the Liet, lye the two Ilands of Lexen, to wete, Norther & ſouther Lexen, which are together about a halfe league long. There the Lieth lyet betwixt both eaſtnortheaſt, & northeaſt & by eaſt.

In ſouther Lexen is a baye, before which lyeth a round rock, making it there within a faire haven, called the haven of Lexen the beſt haven of al the Liet. Iohn Geurtſon Boogart of Amſterdam, hath (at this owne charges, for the commoditie of ſhips that comd there) cauſed to be made a great Iron ring: men doe ancker either to the eaſtwardes or to the weſtwards of the foreſayd rock, where they will in ſixe, ſeven or eight fathome, & bring a hawſer on the foreſayd Ring, the further men doe runne into the Bight, betwixt the Rocke & the land, the ſhowlder it is, but all clean & clear ground.

Road under north-Lexen

At the norther end of norther Lexen is alſo a place, where is good ancker ground fit for to make road in.

Moltow.

Over againſt the haven of Lexen lyeth an other haven called Moltow, where the ſhips doe oftentimes anker in the Harveſt or beginning of the winter, for to ſet ſayle with an eaſt winde, becauſe they can hardly get to ſayle from Lexen with eaſterly winds.

ſwanholm.

A league to the ſouthwards or to the weſtwards of theſe havens of Lexen & Moltow, on the ſouth ſhoare, lyeth a little Iland, whereupō ſtandeth a Warder, called Swanholm which men may ſayle round about; under that little Iland it is good anckering (as wel for them which are bound to the eaſtwards as to the weſtwards) in 4 or 5 fathom good clean ſandground.

The ſouth ſide of the Liet off from Schaerſwyke alongſt to Hegwyke, (which is a league & halfe, & two leagues by weſt the poynt of Agenes) is moſt cleane with little fowle grounds: but from Hegwyke alongſt to Agenes the coaſt is fowle and roky. The north ſide alongſt by Hitteren, as alſo indifferent cleane, except at the north end ly ſome rocks

The Terlinghen.

called the Terlingen, which lye ſomewhat off to the ſouthwards from the ſhore into the Liet. A little to the eaſtwards

Hemneſchel.

of Hemneſioird, over againſt Hemneſchell (an Orchard upon a high land) there the Liet is at the narroweſt, & no more then a halfe quarter of a league broad.

Hemneſſioird lyeth over againſt the north end of Hitteren, it is a bay where many Sawes doe ſtand, & abundance of good Deales are cut & laden.

To the northwards or eaſtwardes of the Terlinghen, at the north end of Hitteren, in betwixt Hitteren and Lexen, lyeth a haven called Deepſound, the Norway Barcks (comming from the ſouthwards) run in there along behind Lexen to the northwards.

From Lexen to the poynt of Agenes on the ſouth ſide, or to Euriland on the north ſide, the Liet lyeth alongſt e. n. e. & n. e. by e. 3 leagues. Agenes is the northermoſt point of the Liet, you muſt go about by it when you are bound to Dronten.

Betwixt Norther Lexen & Euriland lye two Ilands, the ſouthermoſt is called Foſſen, the northermoſt Garten, to the ſoutherward of Foſſen you may ſail through alongſt into the ſea, but not without a Pilot.

For to ſayle from Lexen to Agenes, run alongſt by the northſhore, which is the cleaneſt, the ſouth ſhore is fowle. A cables lenght or cables length & a halfe to the weſtwards of the poynt Agenes, lyeth a ſuncken rocke not farre from the ſhore. For to avoid it more other danger, keepe alongſt by the north ſhore (but take heed that you run not in to no bights or bayes) ſo long untill that you can ſee the houſes upon Agenes, then ſayl towards it, & then you ſhall not fayle within any dangers on the ſouth ſhoare. On the poynt of Agenes is alſo a great Iron Ring for to more the ſhippes to there by it is deeper and ſteepe off-going fowle ground. For to ancker there, you muſt bee very cloſe by the ſhore before you ſhall finde ground, & then you muſt make a cable faſt on the foreſayd Ring, cloſe to the ſhore it is about five of ſixe fathom deep fowle grond.

Euriland.

On the n. ſide of the Liet over againſt the poynt of Agenes, lyeth Euriland, a flat fayre greene land, upon it ſtandeth a little white Church about an Engliſh mile off from the ſhoare within the land, almoſt like the litle Church of Edou, thwart of it is a good road cleane flat riſiug ſand, & claye groud, men doe commonly ancker there thwart of the firſt beakon in 7, 8 or 9 fathom good clay ground, 16, 17, or 18 fathom men lye farre from the ſhore.

With contrary windes, or that men can not come about Agenes, or taken with the night, they doe ancker moſt commonly there.

By Agenes there runneth out alwayes a great ſtrong current to the weſtwardes, & by reaſon the lands from thence to the ſouthwardes on both ſides are very high, & the winde (being ſoutherly) falleth there betwixt thē both, alwayes ſtrong to the northwards, men can not (in ſailing up get any thing there with turning to windewards, but in ſailing off they may get much by the current with turning to windewards.

Salva.

A little about the poynt of Agenes on the ſtarboard ſide, is a great Bay called Salva, wherein is good ancker ground, & good lying, but with northerly winds it is verie hard to com out there for theſe that are bound out, or to the weſtwards.

From Agenes to the poynt of Roobergh, the liet lyeth ſ.ſ.e. aboute three leagues. About halfe wayes or ſomewhat more on the w. ſide lies another bay called Lenſwycke where men may haven roade.

Roobergh Roade.

Roobergh is a ſomewhat flat poynt, to the eaſtwards or to the northwards about this poynt is good road in 6 or 7 fathom. A good wayes from the ſhore to the weſtwards of the poynt, the Norway Barks doe oftentimes ancker, but the ground there is not cleane, and therefore it is no good road for gret ſhips.

Burſen. Bodwyke.

Over againſt Roobergh lye divers Bayes and havens, as Urkedal, Burſen, Bodwyke and other more, where many Deales are cut and laden.

Holm of Dronten.

From Roobergh to the little Iland or Holm of Dronten, the courſe is eaſt three leagues, when you a little paſt Rooberghen, you ſhall ſoone eſpy it againſt the high land to the eaſtwards of Dronten, betwixt them both it is wide and broad. From the poynt of Roobergh the land lyet up

to

Les Costes d'Engleterre depuis le Voorlandt jusques à Crammer

SCHA
PEIE
Quine berch
De Noor
Blacteyl
Bornham
Colchester
Brickelzey
S. Osses
De Vaes
Witstaple
Rokelver
Mariant
S. Victor
't Voorlandt
Goeguch
Coninex diep
Westroex
Kinters knock
S. Galper
Zeemse stu
Zeeuwsch
De Swarte
Wittakers bak
De Sprits
De Noor
Engelsche diep
Engelsche Overloop
De Vaes
Blacteyl
Sc. haper
E

De Reviere van Londen.

T' Amsterdam.
Bij Jacob - Aertsz Colom

Graviſent
Groenhey
Orits Rick
Clements Rich
Grey
Perſiet
Graneſant
Wolwiſ
Tzeemoits
Diſfert
C. Dodes ſchip
London
Rooteſyt
Blackwal
Barkingth

Duijtſche Mylen 15 in een Graedt
Lieues d'Allemaigne 15 en un degre

Pascaerte
VERTOONENDE de MONT
VANDE TEEMSE en VOORT
de CVSTE van ENGELANDT
TOT CRAMMER.

Duijtſche Mylen 15 in een Graedt

GELANDT

Crammer
Admirals huys
Winterdijn
De Hoens
Leiſlaf
Holmen voor Jarmuijen
Winterdijcker Sandt
t Nieuwe Sandt
Orfordneſs
Aelburgh
Duinwits
Aelburger knock

to the northwards ſo farre that at ſome places men can hardly ſee over the water. When you come by the Holm, you may ſaile about within it on both ſides, you muſt bring the Holm to the northwards of you, and anckor to the ſouthwards of it in 6, 7 or 8 fathom, according as you lye cloſe to it or farre from it there is cleane clay ground. The Holm and the Elf, or river of Dronten, ly north and ſouth about a ſhot of a caſt peece aſunder, betwixt them both it is every where good ancker-ground, and depth of 20 and 21 fathom.

About a bow-ſhot northeaſt from the Holm lye two ſunken rockes, which at low water are uncovered. When as they are even covered with the flood, then you may ſaile in over the ſhowldeſt of the Barre into the Elf with a ſhips that draweth 11 foot.

To ſaile into the Elf of Dronten, it is Pylots water, there ſtand comonly two or three maſts for beakons, but there is no certainty of them that men may truſt unto, for they are oftentimes ſhifted: ſometimes they ſtand on the eaſt ſide, ſometimes on the weſt ſide, and alſo ſometimes on both ſides. When you come a ſhips length or two within the beakons you ſhal come to a chindely poynt on the ſtarboard ſide, by which you muſt luff up to the Kay: upon the Barre it falleth with a ſpring tyde almoſt dry, but within it is deeper.

Of the ſtreams on theſe coaſts.

From Stade to Dronten a ſouth and by eaſt and north and by weſt moon maketh high water, with a ſpring it falleth a fathom and a halfe up and downe, with an ordinary tyde ſcarce a fathom.

The tydes run not there alongſt the land, but the flood falleth thwart on againſt the land, and the ebbe to the contrary thwart from the ſhore to ſeawards.

Courſes and Diſtances.

From Stemneſheſt to Gryp northeaſt and by eaſt 7 leagues
From Gryp to the Ilands of Momendall n. e. 18 leagues
From Gryp to Holy land northeaſt & by eaſt 27 leagues
From Gryp to Ruſt north and north and by eaſt 64 leagues
From Gryp to the north end of Hitland ſouthweſt and by weſt 125 leagues
From Gryp to the ſouth end of Fero weſtſouthweſt 167 leagues
From Grype to the eaſt poynt of Iſland weſt, and weſt and by north 233 leagues

Of the hieghts of theſe lands.

The Ilands Whithome and Smeerholme lye in 63 degrees 44 minutes
The Iland Gryp in 64 degrees
The town Dronten 64 degrees 34 minut.

How theſe lands doe ſhew themſelves at ſea.

Theſe two figures belong at the croſſes one to the other.

The land from Gryp weſtwards or ſouthwards towards Stemmeſheſt like theſe two figures here above. when as you ſaile alongſt by it ſeven leagues without the land.

The ninth Demonſtration,

In Which

The eaſt ſide of England and Schotland, is ſhewed, from the River of Londen to the Newcaſtel.

BY two wayes men may ſaile into the river of London, from the ſouthwards alongſt by the north Forland, and from the Northwards alongſt by the Naes. If you wil ſaile in there from the ſouthwards, then you muſt firſt ſhun the North Forland, it is there ſhowld a good wayes from the ſhore, bring the north Forland alſo not more ſoutherly from you then ſouthweſt, that you do not run on againſt the North-grounds, which lye farre to ſeawards. Comming by the land, run alongſt by it, but come not ſo neere it, that you leeſe ſight of the ſpyre of the ſteeple of Margat behind the land, for then you ſhould come too neere it; but if you keepe ſo far from the ſhore, that you can ſee the foreſaid ſteeple above the high land, or keep it even in your ſight, then you cannot take hurt of the ſouth grounds. Coming thwart of Margat, then you are paſt foreſaid ſhowlds or ſouth grounds. Run then boldly towards the ſhore, & within two cables lengths alongſt by it, for to avoie the north grounds, which lye farre to the ſouthwards towards the land. Saile on ſo weſt all alongſt by the ſhore, untill that the Roculvers (which are two ſteeples upon one church) come one in the other, and then you ſhall run in ſight of the firſt buye upon the Laſts, wich lyeth upon the foreſaid markes of the Roculvers, being by it you can alſo ſee the otherbuy which lyeth like as the firſt alſo on the north ſide, and over againſt it on the ſouth ſide ſtandeth a beakon, there you muſt ſaile through betwixt them both, leaving the buye on the ſtarboard ſide, and the beakon over againſt it on the larboard ſide. From thence you may with little ſhippes, or ſhippes of little draught, but not with ſhips of great draught, at high water run over the Swallow on weſtnorthweſt towards Sheppy, for it is there ſhowld water, with ſhips of great draught you muſt runne through the Fiſhers deep towards Black-tayle. You may alſo runne from Margat with ſmall ſhippes alongſt by the ſhoare upon the lead at high water even unto Sheppy, but in ſailing alongſt there you muſt caſt your tydes well, for the flood falleth very ſtrong into the Swallow, and the ebbe to the contrary very ſtrong out.

Roculvers

When you come by Sheppy, runne within two cables lengths alongſt by it, for to avoid the taile of the Spanjard, untill that you be paſt Quinsbrough, edge then off from the ſouth ſhore for te avoid the Noere, which is a ſande that ſhooteth off from the ſouth poynt of the River a good wayes to the eaſtwards, upon the outermoſt end where of ſtandeth alwayes a beakon, whereby you may know it Run alongſt to the northwards of it, leaving on the larboard ſide, and alongſt in the middle of the channell into the ſea-reach for to avoid the grounds which lye off from the north ſhore, goe in ſo alongſt towardes Gravenſend.

Sheppy

The Spagmard.

The Nord

To ſaile with ſhippes of great draughts alongſt by the north Forland up into the Thames, you muſt (when you are paſt the buyes upon the Laſts) ſayle through the Fiſhers deep, toward Black-taile, which lyeth from the ſecond buye upon the Laſts, unto the firſt buye in the fiſhers deep, northweſt and northweſt and by weſt, which lyeth upon the north ſide of the ſand, which men doe call the Spaniard, theſe two buyes lye a great wayes one from the other.

Fishers-deep.

Sailing from the buye upon the Laſts it is a great wayes all ſhowld water, ſo that you muſt runne over there with high water, but comming neare the buye upon the Spaniard,

iard, it is by little and little deeper water. He that wil saile over heere, must reckon his tides well, the flood falleth there alongst towards the southwest almost thwart over the deepe, and the ebbe to the contrary.

The second buye in the Fishers Deepe you must leave on the starboard side, & the buye upon the Spaniaerd on the larboard side: being past that, you come against the Blacketayle, to the southwards of the Shoebeakon into the right deepe. The east poynt of Sheppy shall then lye about south from you. From the Shoe-beakon the course is southwest to the point of Blacktaile, there runneth off a hooke which men micht (at unawares) sail within (comming from the northwards) in five or sixe fathom, but if you keep from the shoare in sevē fathom, you cannot sayle within it. From Black-taile to the beakon upon the Noere, the course is westsouthwest, leave it on the larboard side, as before is said, and runne in alongst the river, in the middle of the channell betwixt both lands unto Gravesend.

For to sail into the river of London from the northwards.

For to saile into the river of London comming from the northwards you must come neere the coast to the northwards of Orfordnes which is to the northwards of all the sands, there lye Albrough, Dunwich, Walderswike, Sowle and Covehit, all betwixt Orfordnes and Leystaf. Covehit is a sharp steeple like at also Leystaffe, but Sowle and Walderswyke, Albrough and Orfordnes are all flat steeples Sowle & Dunwich lye both upon the high land, betwixt them both is a valley, therein you may see Walderswike when you are thwart of it. Dunwich is the best to be knowne of all these foresaid places: it hath two flat steeples, and on both sides some trees, To the southwards of it lyeth Albrough which is also very good to beknowne, it hath one high flat steeple with three mills, the two stand to the northwards, and the third to the southwards of Albrough when you are thwart of it, but sailing to the southwards, they come at last all three to the southwards of it. The land without Albrough, and to the southwards of it is very low flat and chindely land.

Sowle.

Dunwich

Albrough

Betwixt Albrough and Dunwhich about half wayes betwixt them, lyeth a Wood which is at both ends high, and in the middest low with a saddle; this you shall commonly see first when you fall with the land thereabouts, and is the best to be knowne for to know the coast by; the land without it, and to the southwards is very low flat chindely land. About two leagues to the southwards of Albrough lyeth Orfordnes, betwixt them both stand also two woods of trees, which shew themselves a farre off like castles or towers. Orfordnes is a flat steeple with a thick or broad castle, which hath also a thick flat steeple, almost of fashion like the steeple of Rarop, open above with holes in it like Bellholes.

Orfordnes.

Before Dunwich you may ancker, there is good lying in eight or nine fathom somewhat soft ground. Before Aelbrough is the best road of all the coast thereabouts in 6 and 7 fathom.

East from Aelbrough about two leagues lyeth Aelbrough Knock, this is a sand which at low water is not deeper then seven or eight foote: you may sound round about it in five fathom, but is not good to come nearer it. Which sea winds you may discerne it plainly by the breaking of the sea upon it; but with landerly or westerly windes, and faire weather, the sea breaketh not upon it, hee that runneth thereby to the northwards with an eb, shall see it commonly ripple very much upon it, like as upon most the English bancks, & not indeed the upon bankes, but against them, for upon the showldest or middest of the bankes is alwayes the smoothst water, like as you finde every where.

Albrough Knock.

When as Aelbrough is west from you, and the two steeples of Orfordnes are one in the other, there you shall finde Albrough knock. These are sure marks of that sand.

Markes of Albrough Knock.

The Whiting, or Whiting sand, is somewhat a long small sand lying before Orfordnes, and the chindely land to the southwards of Aelbrough, and lyeth alongst the reach, buth the south end lyeth further from land then the north end, there is at low water not above six or seven foot water upon it. Comming from the northwards, men sayle commonly to the westwards of it, that is through betwixt the land and Witing-sand, towards the Naze. Men may also saile alongst to the eastwards of it, through betwixt Whiting sand and the eastermost poynt of the Court, or Courtsand, which some doe call the Rib.

VVhiting sand.

The north end of the Whiting lyeth alongst close to the shore, and lyeth from the steeples of Orfordnes southeast and by south, it is so exceeding steepe and nedle too, that you shall have the one cast nine, the next cast five fathom, and then you are no more but a ships length from it, before you can heave the lead again you should be upon it. When as you sit with the foreship against it, it is at the stearne five or sixe fathom deepe.

Alongst the Inner-side it is also everie, where so steepe, that you can not sounde it, but on the outer side you may runne alongst by it in five fathom upon the lead, until you come within the sands.

When as you come from the northwardes & wil sayle through within the Whyting, you must run close alongst by the shoare, & south w. about by the poynt of the chindle to the southwardes of Aelbrough; untill you come whitin the north poynte of the Whytinge, when the steeples of Orfordnes come to be northwest and by north from you, then you are right thwarte of the north poynte of the Whyting, being within it goe againe more southerly, to weete, southwest and by south towardes Balsy cliffe.

If you should fall to the southwards of whyting, or els comming from the southwards will saile in there to the northwardes, then bring the steeples of Orfordnes westnorthwest or northwest and by west, but for all not more northerly then northwest from you, and saile so right in untill you come by the Chindle strand, then run in alongst by it, as is before saide, and then you shall run far enough alongst to the nordwardes of the Whyting.

If you will saile in to the eastwardes or the southwardes of the Whiting, thē bring the steeples of Orfordnes northnorthwest, or northwest and by north, or northwest from you, and saile in so right with them; untill that the wood of trees, that standeth upon the nexte poynte to the southwardes of Balsy cliffe, come to Balsy cliffe, which shall then stand aboute westsouthwest from you, keepe that aforesaid woode to the south side of the cliffe, and saile in boldly right with it, and then you shall runne right in the farewaie, in betwixt the Whiting, and the tayle of Courtesandt but if you bring the foresaide trees more then a handspikes length without the cliffe, you shal not faile to runne on against the poynte of the Courte. That aforesaid wood of trees is verie good to beknowne, because there abouts stand no other trees.

For to runne in the eastwards of the VVhiting.

Or bring the steeple of Balsy w.s.w. from you, and saile in so right with it, untill you come by whiting sand, in five or sixe fathom, and leade it in so by it upon the leade, untill that you come by Balsy, or that you gett deeper water.

When you come neare Balsy, whether you be come in from the northwards, or the southwardes of Whytingsand, you must keepe somewhat off from the shoare, because of a little riffe or small tayle, that shooteth off from the shore, thwarte of Balsy cliffe, which you must avoide somewhat, with shippes of greate draughts, there remayneth at lowe water upon it no more then two fathome, you may commonly perceive it well by the rippeling of the tyde.

You may also saile in to the southwardes, of the Ribbe (that is, the tayle of the Courte or Courte sand) thus: Bring the steeple of Balsy northnorthw. or a little more northerly from you, and saile in so right with it, and so you shal runne in to the northwardes, or through the Courte, at a channell of eight fathome depth, the east side of this channell is steepe, come no nearer it then eight fathom, but by the west side you may runne in aboute by the Court, upon the lead, untill you come within the sands.

For to saile in at a channell through the Court.

Balsy hath a high flatte steeple, and lyeth somewhat within the land behind the cliff, when as you come from the northwards, you may see Balsy to the northwardes or the westwardes, of the cliffe, but you saile it altogether behinde the cliffe, so that at last it commeth out againe to the southwardes of it.

Balsy.

If

If you will ſaile to Harwich being paſt Balſy, then bring Balſy to that ſteepe point to the ſouthwards of Balſy, where trees ſtand upon, keep theſe marks ſo ſtanding, and run ſo alongſt by the ſhoare, untill that you be over the point of the Chindle, the markes thereof are two high trees within the land, when they are about N. n. weſt from you, then they come one in the other with the ſteeple of Harwich, and then you are right over the point of the Chindle, and then you ſhall get deeper water, to wete, foure and five fathom, or ſomewhat more againſt the higheſt water. Runne in then about by the poynt, the Channell lyeth in right N. but in the middeſt of the Havens-mouth lyes a ſuncken rocky and ſtony ground, which you muſt avoyd, you may ſaile in about it on both ſides, by the one ſhoare or the other, but alongſt by the eaſt ſhoare it is beſt, being within it, you cannot ſayle amiſſe, to take hurt, if you doe not ſayle bluntly againſt the ſhoare. there you may anckor all over, where you pleaſe, before the Towne, in five, ſix, and ſeven fathom. You may well alſo goe further into the bight, there it it clean every where. The fareway betwixt Orfordneſſe or Whiting ſand and the Naze lyeth moſt ſ. w. and by ſ. and is 6, 7, and 8. fathom deep, in turning to windwards, you may run to the ſhore in 5 and 4 fathom, but cloſe to the ſands it is deeper, to wete, 8, 9, and 10. fathom, the nearer the ſands the deeper water.

But to ſayle from Bolſey to the Naze, you muſt marke the ſteeple of Balſy, when it commeth within a Capſtone barres length neare to the ſ. end of the cliffe, then keepe them ſo ſtanding, ſo long untill that the houſe upon the Naze come over the two fields, which lye on againſt the High Land, or come over a black head upon the ſea ſide, ſayle then right in with them, untill that the ſteeple of Harwich come to be n. n. w. from you in the little valley of a red cliffe, leave then the firſt markes, keepe the ſteeple of Harwich in that little valley, and goe on ſ. ſ. e. untill that the 3. poynt of the Naze come without the two other poynts, ſo you ſhall runne through betwixt the Naze and the courſe, there remaineth at low water no more then eight, tenne, and at ſome places twelve foot water, therefore it is not good to runne through here, unleſſe that it bee a quarter flood, or with a ſhip of great draught at halfe flood, there it is very uneven of ground rocky and ſtony. The poynt of the Naze is very ſtony, foule and uneven, the nearer the ſhoare thwart of that poynt the ſhowlder, but the nearer the Sands the deeper.

When that the third poynt of the Naze commeth without the two other poynts of the other land, and that it doth againe begin to deepe off, to wete, foure or five fathom then goe ſoutheaſt ſomewhat ſoutherly, or ſouthweſt and by ſouth, unto the buye upon Longſand. Thwart of the Naze is Long-ſand very ſteepe, ſo that it cannot bee well ſounded with the lead by them that are not there very well acquainted, but ſomewhat more to the ſouthwards, you may runne alongſt by it in foure fathom, and 3. fathom and a halfe, untill that you get the buy upon Longſand in ſight of you. The n. ſhore to the ſouthwards of the Naze is alſo flat, you may runne alongſt by it alſo upon the lead, without any danger.

The buy upon Longſand lyeth in two fathom and an halfe at halfe flood, you muſt leave it on the larboard ſide, and the Buye upon the Spits, on the ſtarboard ſide, which lyeth a little ſhowlder, they lye about ſouth and by eaſt and north and by weſt, a musket ſhot one from the other. The courſe betwixt the two buyes is ſouthſoutheaſt and northnorthweſt but you muſt reckō wel your tide, whether you run through there with a flood or with an ebbe. Upon the Spits, betwixt the two buyes is at halfe flood at leaſt three fathom and a halfe, or almoſt foure fathom, in the right channell, a little to the ſouthwards of the buy upon the Spits ſtand two maſts above water, of a loſt ſhip, which are good markes. Being over the Spits, the courſe to Whitakers beakon is ſ. ſouthweſt.

About halfe way betwixt them ſtand alſo 2. maſts more on the ſame w. ſide, & over againſt theſe maſts lyeth a middle plate, whereupon lyeth a buy on the weſt ſide: the fareway is alongſt to the weſtwards of this Middle-plate, through betwixt that foreſaid buy and the Maſts.

To the northwards of that foreſaid Middle-plate, goeth out a Channell by the ſouth ſide of Longſand, which you may ſayle out and in, called the Kings-deepe. If you come from Whitakers beakon, paſt the Middle-plate, ſo farre that you get ſight of the buyes of Long-ſand or Spits, goe then boldly e. n. e. and n. e. and by eaſt into ſea, or upon the lead alongſt by Longſand, but if you ſhould run into ſea, to the ſ. wards of the Middle-plate, you ſhould with an e. n. e. way fall within the Hooke of the Mouſe. This Kings-deepe is already Channell, and is uſed almoſt for all ſhips for to runne out at.

For to runne in at this Channell out of the ſea then bring the poynt of the Naze northweſt from you, and ſayle in ſo with it, untill that you come neare Goemfliet or Long-ſand in five fathom, goe in then alongſt by it about weſtſouthweſt, and ſouthweſt and by weſt, and keepe the ſounding of Longſand, and ſo you ſhall not faile to runne in ſight of the buy upon the Spits and the foreſaid maſts to the ſouthwards of it.

From Whitakers beakon to the Shoebeakon the courſe is ſ. ſ. w. ſomewhat weſterly, comming thwart of the Shoebeakon, then lyeth the eaſt poynt of Seppy about ſ. from you. From the Shoebakon the courſe is alongſt ſ. w. to the poynt of Black-tayle, there runneth off a Hooke, which men might ſayle within comming from the northwards; but if you keepe from the ſhoare in ſeven fathom, cannot take hurt of it, but in five fathom you runne within it. The like Hooke is alſo a little to the ſouthwards of the Shoebeakon, which you might unawares ſaile within, comming from the ſouthwards.

From Blacktaile to the beakon upon the Nore, the courſe is w. ſ. w. The Nore is a ſand, lying from the ſouth poynt of the maine land of the river, farre to the eaſtwards, therefore leave the beakon on the larboard ſide, and goe on weſt alongſt, amidſt the channell into the river, betwixt both the lands, as here before hath beene ſaid in the deſcription of the Fiſhers deep.

From Aelbrough alongſt by Dunwich to Covehit the coaſt lyeth north and by eaſt ſomewhat eaſterly, and ſouth & by weſt, or ſomewhat weſterly five leagues: But from Covehit or Leyſtaf north & ſouth two leagues Aelbrough, Dunwich and the ſands lying thereabouts, are deſcribed here before.

Betwixt Dunwich & Covehit lyeth the Haven of Sowle, which is a little ſhowld river, a little within it divideth it ſelfe into 3. parts, upon the northermoſt arme lyeth Sowle, upon the middlemoſt Walderſwyke, and upon ths ſouthermoſt Dunwich.

Covehit hath a high ſharpe ſteeple, thwart of it lyeth a banck not farre from land, which falleth almoſt dry at low water, but at halfe flood you may ſayle through betwixt it and the land in 3. fathom, upon the outer ſide it is very ſteep ſo that you cannot come nearer it then nine or ten fathom. When the ſteeple of Eaſton is weſtnorthweſt from you, then you are to the ſouthwards of the bancke, and when the ſteeple of Covehit is ſ. w. and by w. from you, then you are to the northwards of it.

Two leagues to the northwards of Covehit lyeth Leyſtaf, and two leagues more to the northwards of it lyeth Yarmouth. The ſteeple of Leyſtaff is a high ſharp ſteeple and ſtandeth a great musket ſhot within the land from the houſes, ſo that in ſayling alongſt you may bring the ſteeple on both ſides of the houſes. Off from Leyſtaff begin the bank or Holms of Yarmouth, and lye alongſt to the n. wards paſt Yarmouth, untill thwart of Winterton, there goe divers channels through them, which men may ſayle through, upon divers markes, for theſe that are there acquainted; you may ſayle through within theſe banckes, off from Leyſtaff untill paſt Winterton.

If you will run through from before Leyſtaff within theſe banckes, then looke out for the firebeakon which ſtand by Leyſtaff, which at two little white houſes, the one ſtandeth beneath upon the chindle on the ſea ſide, and the innermoſt upon a little Hommock, ſomewhat further within the land. When they come to the ſouthwards, they ſhew themſelves to the northwards of the Towne, but come at laſt thwart of it. In the night there is alwayes fired upon them, for to

saile in there also by night. Bring these foresaid fire-beakons n. w. and by north, or somewhat more northerly from you and saile in so right with them either by night or by day, the Church of Leystaf commeth then to the southwards of the Towne over a Countrey house by the water side, when you come against the Channell, there is at low water no more then 3. fathom depth, keep these foresayd firebeakons one in the other, or bring the innermost rather a little to the northwards of the outermost, for to avoyd a little plate, which lyeth on the south side of the Deep, but the Channell is indifferent wide, runn untill you come against the strand in two fathom and a halfe or two fathom, so near as you will or can, and goe then up northwards alongst by the shoare, you shall then (being sailed a little to the northwards) meet with a flat, whereupon remaineth at low water lesse then two fathom depth, with laden ships, you must anckor before that flat, and stay for high water, it floweth there about 8. foot up and downe, so soone as you are over the flat it wil be 5, 6, & 7. fathom deep, edge then to the shore, and saile toward it, & then you come before the Brewhouse, there is the road where you may anckor in 4, 5, and 6. fathom, from thence n. wards towards Yarmouth alongst the shore is all over good anckoring and good ground,

Haven of yarmouth

About an English mile or somewhat more to the s. wards of the towne Yarmouth, is the haven of Yarmouth, it hath 2. wooden heads, where you must saile in betwixt them both against the highest water, when the strongest of the flood is spent, at halfe flood it is dangerous, because of the strongest tide, which should lightly carry you into the bight, against the shoare, (against your will) it is also best to runne in alongst by the southerhead, there it is deepest. At Yarmouth in the road men doe commonly anckor to the northwards of the haven right thwart of the towne, in 5, 6, 7, or 8. fathom, the nearer you anckor to the sands the deeper water you shall have, but all good sand and soft ground.

Road before Yarmouth.

If you will sayle into the Reade of Yarmouth through the Holmes, then bring the sharpe little steeple, that standeth to the northwards of Yarmouth within the land, over the broad Castle, or bring the mill to the north side of the towne. keepe these markes so standing, and goe in so west n. west, you shall finde in this Channell not lesse water then 8, or 9. fathom at halfe flood, this Channell is called Saint Nicholas Channell: on the North side it is deepest, being come in, the road is right before the towne in five and six fathom.

S. Nicolas channell.

Thwart or over against the haven of Yarmouth goeth also a chanel through the Holms, for to saile in through there comming to the southwards, then bring Southon over the north side of the Haven; the great tree betwixt Northon and that flat little house or Castle, saile in right with them, & keep these markes so standing, untill that you be within the Holmes, within them lyeth a plate on the starboard side, a little to the n. wards of the Haven, called the Middleground, you may sayle about it on both sides, on the inner side in five fathom, but towards the Holmes, or about to the eastwards of it in 8, and 9. fathom.

From Yarmouth to Winterton the coast lieth n. and by w. and n. n. w. two leagues.

If you wil saile from Yarmouth forth through within the banks to the n. wards, sail along by the land, & keep the sounding of the shore in 5, 6, or 7. fathom, until that you have the 2. firebeakons (which stand a little to the northwards of Castor) one in the other, saile then right with them, either by day or by night, (in the night there is fired upon them) you shall so run over a flat, through betwixt 2. buyes, which lye each of them upon a taile of a sand, saile boldly in with the foresaid firebeakons, untill that come again neare the shore, in 5, or 6. fathom, being come by the shore, run then again along by it, and keep the sounding thereof as before, al alongst untill you come before Winterton.

Riffe of VVinterton or winterton Nesse.

Thwart of Winterton runneth off a dangerous riffe, which is dangerous to sail about by night, if men do come to neare it, which is upon the end so steepe, that (in 3. fathom or 2. fathom and a halfe) you shall not bee a ships length off from it. But when as you (comming from the southwards) keepe your selfe in 6 or 7 fathom, then you cannot fail to neare to it. To the s. wards of that riffe upon the land standeth a firetowre, which is very good to be known, with a firebeakon, and also a little white house, when these come one in the other, then you are thwart of the point of the riffe.

To the Northwards of this riffe upon the land stand two white fire-beakon, whereupon there is fired by night, for to avoyd this riffe. When as you come thwart of the point, then are these also one in the other, so that these doe serve for thwart markes, and the other to the southwards of them for long markes, for these that will saile about it from the southwards. Coming from the n. wards alongst the shoare in 5, or 6. fathom, untill you come by the fire-beakons upon the n. side, you must keep somewhat of from the shore, Before they come one in the other, or else you should run on against the riffe. When they are one in the other then stand south w. & by w. from you, & when as the high firebeakon to the southwards of Winterton cometh to be s. w. somewhat more westerly from you, then you are thwart of the point of the riffe: you may not also run about far within that riffe, for then you should lightly be foule of the grounds to the eastwards of it, especially when you come from the northwards, for there it is not very wide betwixt them both.

From Winterton to Haesbrough poynt the course lyeth n. w. 3. leagues.

Betwixt Haesbrough and the Admirals house stands a ruinous tower upon the strand. When as you keep it & the steeple of Haesbrough one in the other comming faom the northwards, then you run right upon the point of the foresaid riffe. Foure leagues without the Land lyeth Winterton sand, the s. end thereof lyeth about e. and the n. end n. e. from Winterton.

Thwart of Admirals house, not far from the shoare, lyeth also a little plate where no ship can goe over, but if you go in 6, or 7. fathom, you cannot saile too neare it, you may also runne through in two fathom, betwixt this plate and the land.

From Haesbrough to Cromer the Coast lyeth alongst northwest and by west, and west northwest, three or foure leagues.

Of the Depths and Showlds about these plates and in what Depths men may see the Land.

Five or six leagues north and by east and Northnortheast from the n. Forland or from Marget lieth a bank called Kentish Knock, upon it is 3. fathom water. Being by it you may even see the land from below.

Five leagues n. east from this bancke it is twenty fathom deep.

Northeast and by north from the North Forland 9, or 10. leagues, and about east from the naze 8. leagues into the sea, lyeth a banck called the Gallopper, of five, six and 7. fathom depth.

The westrocks is a stony ground, lying between the Court and Longsand, where is no more then 2 fathom water at a halfe flood.

Without that sand or Harwich five leagues from the naze it is 20. and 22. fathom deepe, being there you may see the land.

Thwart of Orfornes you may see the land from below, in two and twenty fathom.

Five or 6. leagues without Leystaff and Yarmouth s. e. & east into sea it is 27. and 28. fathom deep, there you may see the land.

Foure leagues e. and by s. from land, without the Holmes of Yarmouth, lyeth a bank called the Newsand, which is not deeper then 2. fathom.

E. n. e. at least 7. leagues from land thwart of Yarmouth it is 15. fathom, the ground red grosse sand with little round stones, being there you may even see the land from below.

Thwart of Winterton and Cromer 7, or 8. leagues from the land it is 18, and 19. fathom deep, and there you may see the land.

Winterton sand lyeth 4, or 5. leagues from land n. e. from Winterton.

What

What moon maketh high water at the places.

At the north Forland a north and ſouth moone maketh high water.

Within the Thames a ſouth and by eaſt moone.

Before the Thames, at Harwitch and Orfordnes a ſouthſoutheaſt moone.

At Leiſtaff and Yarmouth a ſouthſoutheaſt moon maketh high water.

Without the bancks of Yarmouth, and before Cromer, a ſ.e. Moon maketh full ſea.

Betwixt the bancks of Harwitch and the Holmes of Yarmouth the flood falleth ſouth and the ebbe north.

Thwart of the banks of Winterton and Cromer the flood falleth ſouthſoutheaſt, and the ebbe northnorthweſt.

Of the Tydes and Courſes of the ſtreames.

From the north Forland the flood falleth to the Rocolvers, and over the Brakes weſtſouthweſt, and weſt and by ſouth.

Without about Good-win towards Kentiſh Knock the flood falleth north and by weſt, and northnorthweſt there commeth the flood alſo againſt it from the northwards, and meet one another by the Gallopper, with very great rippeling and noyſe, (whereof this banck is alſo called the Gallopper) and falleth to the weſtwards into the ſands and channels, and alſo to the eaſtwards towards Flanders.

Betwixt the North Forland and Orfordneſſe the ſtreame falleth without the ſands ſouth and by eaſt, and ſouthſouth. eaſt.

When you are to the Northwards of the Gallopper, then you can reckon no ebbe, then that which runneth alongſt England to the northwards, the ſtreames fall there all alongſt the coaſts. To the ſouthwards of the Gallopper the ebbe goeth to the contrary, to the ſouthwards, and the flood to the northwards.

Courſes and Diſtances.

From the north Forland to the north end of Goodwind the the courſe is ſouth and by eaſt one great league.
From the north Forland to Kentiſh Knock northeaſt and by eaſt, and n.n.e 4. or 5. leagues.
From thence to the Orfordneſſe north 12. leagues.
From the north Forland to the Gallopper n. e. and by n. 9. leagues.
From the Gallopper to Orfordnes northnorthweſt 9. or 10. leagues.
From the North Forland to the Wielings the courſe is eaſt ſomewhat northerly about 27. leagues.
From the north Forland to the Maſe the courſe is e. n. e. or ſomewhat more eaſterly about 33. leagues.
From the north Forland to the Teſſell or Marſdiep north e. 45. leagues.
From the Naze or Harwitch to the Maſe eaſt 29. leagu.
From Orfordnes to Teſſell e.n.e. 39. leagues.
From Yarmouth to Leyſtaff to Walcheren or the Wicklings ſoutheaſt, and ſoutheaſt and by ſouth eight and thirty or 40. leagues.
From the point of Cromer or Schield, to the Teſſel the courſe is eaſt 40. or 42. leagues.

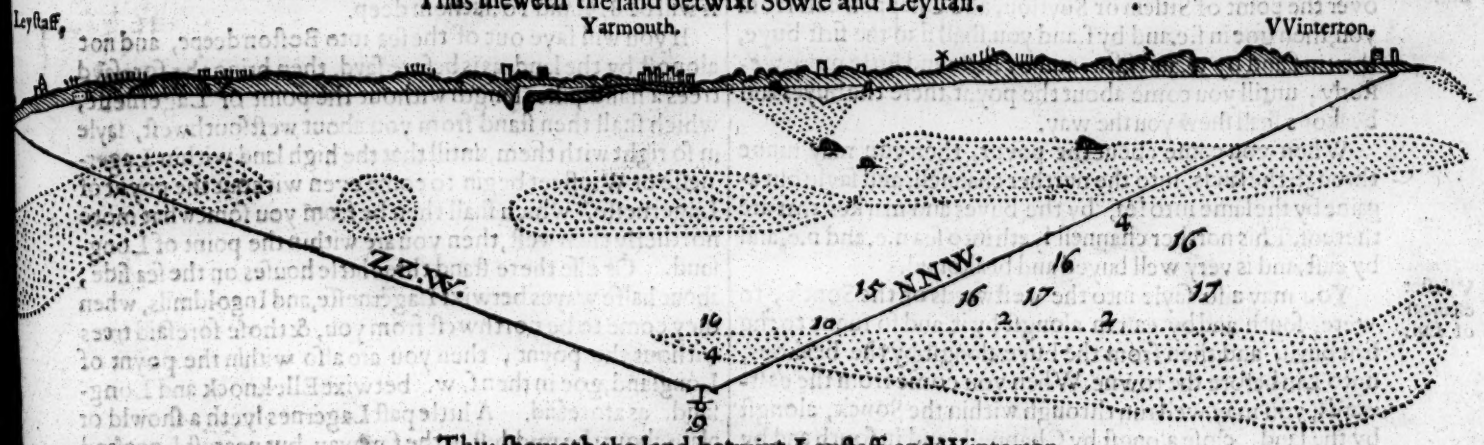
Of the heights of theſe lands.

The North Forland lyeth in 51. degrees 25. min.
Orfordnes lyeth in 52. degrees 12. min.

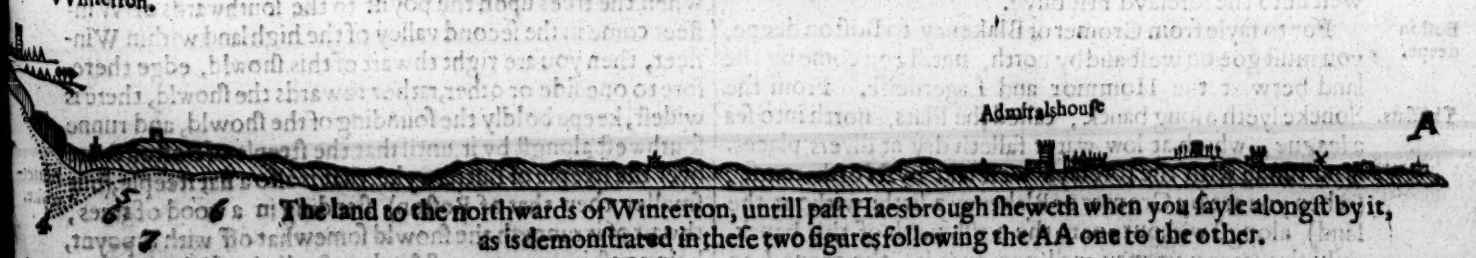
How theſe Lands doe ſhew themſelves at ſea.

Thus ſheweth the coaſt of England betwixt Orfordnes or Sowle haven.

Thus ſheweth the land betwixt Sowle and Leyſtaff.

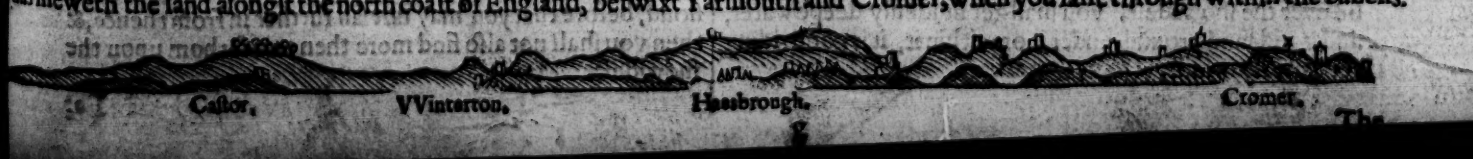


Thus ſheweth the land betwixt Leyſtaff and Winterton



The land to the northwards of Winterton, untill paſt Haesbrough ſheweth when you ſayle alongſt by it, as is demonſtrated in theſe two figures following the AA one to the other.

Thus ſheweth the land alongſt the north coaſt of England, betwixt Yarmouth and Cromer, when you ſaile through within the bancks.



The

The Tenth Demonſtration.

In Which

The Coaſts of England are ſet forth betweene Cromer and Orkeney.

THe land lyeth from Cromer to Bornum firſt w. n. w. and weſt and by north, and then weſt, and weſt and by ſ. 9. or 10. leagues.

From Cromer to Blakeney it is 3. or 4. leagues.

Blakeney. At Blakeney ſtandeth a high ſteeple, which you may ſee alongſt farre over the land, when it commeth to the little ſteeple, then you have the firſt buy of the channell, which lyeth at the ſouth end of the Pole, which is a ſand at the w. ſide of the channell of Blakeney, go from the firſt buy to the other and alongſt by them, untill you come within the Haven, This is a tyde-haven, where men doe lye dry at low water.

Pol and Piper. 4. leagues to the weſtwards of Blakeney lyeth Wels, betwixt them both lyeth the foreſaid ſhowld, called the Poll & Pyper, there it is ſhowld far off at ſea. At the weſt end of this ſhowld, goeth in the Deep of Wels, the beacons that you muſt ſaile in alongſt by, ſtand all alongſt by the Pyper. When Hoebrom ſtandeth eaſtſoutheaſt from you, then you are to the weſtwards of the Pyper, thwart of it is good road in ſix VVelles. fathom. Wels lyeth then ſoutheaſt from you, and the trees ſtand then alſo againſt the ſteeple, then you may ſayle open into the Haven of Wels, alongſt by the foreſaid beakons.

Betwixt Wels and Bornum lieth a back, you may ride under it in five or ſix fathom, 'at halfe flood there is upon it no more then two fathom water.

Bornum. He that will ſaile into Bornum, muſt goe in at high water, and he muſt bring the ſteeple againſt the Black-houſe, and ſaile ſo in by the beakons, leaving them on the larboard ſide. Theſe are all tyde-havens.

Chappel. From Bornum to Chappell the courſe is weſtſouthweſt 2 leagues, to the northwards of it lyeth the Sonck, which is a The Sonk ſand that falleth dry at low water. You may ſayle about it on both ſides of the Sonck unto Lin.

Eaſter channel of Lin. For to ſaile into the eaſter channel of Lin, then ſaile about to the eaſtwards of the Sonck, and bring that wood of trees, over the point of Sitſein or Suytſon, and Chappell eaſt from you, then goe in ſ. e. and by ſ. and you ſhall find the firſt buye, then in ſ. and by w. and ſ. ſ. w. and by little and little more weſterly; untill you come about the poynt, there the buyes and beakons ſhall ſhew you the way.

When you come about the poynt, then you may runne through the ſands, into the norther channell, and ſayle out againe by the ſame into ſea, by the buyes and markes that are thereof. This norther channell lyeth into ſea n. e. and n. e. and by eaſt, and is very well buyed and beakoned.

VVeſter channel of Lin. You may alſo ſayle into the weſtwards of the Sonck, to wete, ſouth and by eaſt in alongſt by it and ſo runne to the firſt buye, and then from the buye alongſt by the beakons, unto Lin before the towne. When you come from the eaſtwards, you may well run through within the Sonck, alongſt by the land, cloſe alongſt by Chappell, and in ſouth and by weſt unto the foreſayd firſt buye.

Boſton deepe. For to ſayle from Cromer or Blakeney to Boſton deepe, you muſt goe on weſt and by north, untill you come by the land betwixt the Hommor and Lagerneſſe. From the The flats. Soncke lyeth a long banck, called the Flats, north into ſea a league, which at low water falleth dry at divers places. You runne with the foreſayd weſt and by North courſe, (when you are by Cromer or Blakeney a little without the land) alongſt without, or to the northwards of this banck, at high water you may well goe over it, the ground on the eaſt ſide goeth up flat and playne, run boldly to it without feare, untill you come in foure or three fathom, hee that uſeth his lead can take no hurt of it, but on the inner ſide, that is, on the weſt ſide it is very ſteepe, ſo ſoone as you be over the ſhowldeſt, you ſhall get ſuddenly deepe water, and good ſand ground, under it or within it, it is good riding for caſterly winds.

For to ſaile into Boſton deepe, through within the Knock or Elleknock, you muſt keepe the ſounding of the ſhoare in foure or five fathom, ſo long untill that the poynt of Lagarneſſe be weſtnorthweſt from you. Betwixt the ſhoare and Elleknock remayneth at low water five fathom in the middeſt of the channell, but Elleknock falleth dry at low water. When that Lagerneſſe is weſtnorthweſt from you, then goe on ſoutheaſt, through betwixt Elleknock and the ſhowld, (which ſhooteth off from the ſhoare to the weſtwards of Lagerneſſe) untill that you get againe depth of ſix or ſeven fathom, in this going over remayneth at low water, no more then two fathom, but it floweth there about three fathom up and downe. Being over it, then goe on ſouthweſt alongſt betwixt Longſand and the Long ſand ſhowld, which lyeth off from the ſhoare, there it is deepe betwixt them both nine and tenne fathom, you may ſound both ſides, (as well the ſhowld which lyeth off from the land, as Longſand) in five fathom, but the flat is ſomewhat ſteeper then Longſand. For to ſaile into Boſton deepe, through within the Knock or Elleknock, you muſt keepe the ſounding of the ſhoare in foure or five fathom, ſo long untill that the poynt of Lagarneſſe be weſtnorthweſt from you. Betwixt the ſhoare and Elleknock remayneth at low water five fathom in the middeſt of the channell, but Elleknock falleth dry at low water. When that Lagerneſſe is weſtnorthweſt from you, then goe on ſoutheaſt, through betwixt Elleknock and the ſhowld, (which ſhooteth off from the ſhoare to the weſtwards of Lagerneſſe) untill that you get againe depth of ſix or ſeven fathom, in this going over remayneth at low water, no more then two fathom, but it floweth there about three fathom up and downe. Being over it, then goe on ſouthweſt alongſt betwixt Longſand and the ſhowld, which lyeth off from the ſhoare, there it is deepe betwixt them both nine and tenne fathom, you may ſound both ſides, (as well the ſhowld which lyeth off from the land, as Longſand) in five fathom, but the flat is ſomewhat ſteeper then Longſand.

For to ſaile without Elleknock into Boſtons deepe, comming (as is before ſayd) to the weſt land, you muſt looke out for the two ſteeples of Ingoldmills, ſtanding ſome- Ingoldmils. what to the northwards of Lagerneſſe, bring them one in the other, and then you ſhall ſtand about northnorthweſt from you, keepe them one in the other, and goe on ſouthſoutheaſt, untill that the trees upon the poynt by weſt Lagerneſſe, come without the poynt of Lagerneſſe, and then you runne through betwixt Elleknock and Dogſhead, (that Dogshead is a ſhowld without Elleknock) when theſe aforeſayd trees come a handſpikes length paſt, or to the eaſtwards of the poynt of Lagerneſſe, then goe on ſouthweſt, and then you runne right into the deepe, betwixt Elleknock and Longſand, and ſo you ſhall finde betwixt Elleknock, and the poynt of Longſand five fathom depth, being paſt Elleknock, it will be 8. 9. and 10. fathom deep.

If you will ſaye out of the ſea into Boſton deepe, and not alongſt by the land, as is before ſayd, then bring the foreſayd trees a handſpikes length without the point of Lagerneſſe, which ſhall then ſtand from you about weſtſouthweſt, ſayle in ſo right with them, untill that the high land within Lagerneſſe or Winfleet begin to come even without the poynt of Lagerneſſe, which ſhall then be from you ſomewhat more northerly then weſt, then you are within the point of Longſand. Or elſe there ſtand three little houſes on the ſea ſide, about halfe wayes betwixt Lagerneſſe, and Ingoldmils, when they come to be northweſt from you, & thoſe foreſaid trees without the poynt, then you are alſo within the poynt of Longſand, goe in then ſ. w. betwixt Elleknock and Longſand, as aforeſaid. A little paſt Lagernes lyeth a ſhowld or plate about the middeſt in the fareway, but neareſt Longſand when the trees upon the poynt to the ſouthwards of Winfleet come in the ſecond valley of the high land within Winfleet, then you are right thwart of this ſhowld, edge therefore to one ſide or other, rather towards the ſhowld, there is wideſt, keepe boldly the ſounding of the ſhowld, and runne ſouthweſt alongſt by it, until that the ſteeple of Boſton come over the ſteeple of Butterwyke, that is alſo a flat ſteeple, (but Butterwyke. ſmaller then that of Boſton) ſtanding in a wood of trees, thwart of it runneth the ſhowld ſomewhat off with a poynt, being paſt it, goe on weſtſouthweſt all alongſt by the foreſaid ſhowld, untill that the great ſteeple of Boſton come over the ſecond mill, there it is good anckoring by the weſt ſhoare in five fathom at low water. He that commeth there at low water, muſt anckor and ſtay for the tyde untill halfe floud, before that you may not ſail further in from thence, & then you ſhall not alſo find more then two fathom upon the ſhowldeſt:

For

Les Costes Marines d' Engleterre et Escosse entre Crammer et Orcades

Boston
Lint
Walpod
Batterwijck
Yeger sandt
Wrangel
Smithsum
Wijnsliet
Lagerings Skegnes
Engenieet
Sutfen
Sonck
Ellenboek
Capelle
Flaets
Bornum
Geps
Welles
Blakeney
De Welle
De pol en gat
Crammer
Whitby
Grunsby
Hambert
Hul
Paals
Debul
Poltoren
Hornsey
Spurnhead
Kelusey
Dosslyn
Sisters
Flamborough
Korön
Edenburgh
Luct oste Seeton
I. Leinkieff
S. Ians
Donde
Castel
Brought
S. Andreas
Athen
Albret
Northberwijck
Bas
Rothoogst
V. Man
t Schaep
Steenhoogt
St. Abbens hooft
Lammerton
Barwijck
Gosewijck
Yarmouth
Dunstaburgh
Bamburgh
Alemouth
t Hilligh eylant
Gouwsteen
Ploegh
De Schaapen
Stapels
Coket oste Coggen eylant
Duijtsche mijlen is veer een graadt
Spaansche mijlen 17½ voor een graadt
Engel en Fran. mijlen 20 voor een graadt

De Noort Cust van Engelandt tusschen Crammer en de Revier van Nieastеel

Lieues d'Allemaigne 15 en un degre
Duytsche mylen 15 voor een graadt Lieues d'Espaigne 17½ en un deg
Spaansche mylen 17½ voor een graadt Lieue Angl et Fot 20 en un deg
Engel en Fran mylen 20 voor een graadt

Nicalteel
Haefoort
Stocton
DVRHAM
vierboeden
Rootclif
Hompelvoet
Scharenborgh
Romenhooft bay
Fyley
Hartypole
Sonderland
Paps
RIDING

Cuyten van Engelandt en Schotlandt tusschen Tinbij en de Eylanden van Orcaneße

Lauwernes
Roste
C. Pinkele
Dornok
Vuyle
IS. Martin
Hiplant
C. de Hobruint
Ways Hoy
Dinkerk
Barradil
Denet
Old wyck
Noss head
Aberd
Conet
Plata
PORONIA
Norwe
Tinderns
Hoeck van Elgin
Cnlane
Spea flau
Banfe
Aberdin
Slaues
Douem
Pyflood
Out Aberdin
Ethap
Fuvrie
Bockenes
Orcanes
Orcades Insulæ

Les Costes Marines d' Engleterre et Escosse entre Crammer et Orcades

Boston
Batterwyck
Wrangel
Walpool
Hyger sandt
Snitsum
Suysen
Sonck
Capelle
Bornum
Ceps
Welles
De Welle
De pol en peper
Wijngsluit
Engemeedt
Ellenboock
Salfsliet
Grunsbij
Debul
Polderen
Kelusbij
Dogslijn
Sijsters
Paele
Hul
Flacts
Flacts

De Noort Cust van Engelandt
tusschen Crammer en
de Revier van
Nieusteel

Lieues d'Allemaigne 15 en un degre
1 2 3 4 5 6 7
Duytsche mylen 15 voor een graadt Lieues d'Espaigne 17½ en un deg
1 2 3 4 5 6 7 8
Spaansche mylen 17½ voor een graadt Lieues Angl et Fra 20 en un deg
1 2 3 4 5 6 7 8
Engel en Fran. mylen 20 voor een graadt

Nicalfeel
Hagsoort
Tin Tun
Stocton
DVRHAM
vierboden
Tocse
Hertipoole
Sonderland
Pops
Slot
vierboeden
Rootclif
T RIDING
Hompehoet
Scharenborgh
Romenhoofts bay
Fyleg
Flamborough
Hul
Hornsea
Flamb
Hag

Duytsche mylen 15 voor een graedt

Spaensche mylen 17 ½ voor een graedt

Engel. en Fran. mylen 20 voor een graedt

Edenburgh

Liet ofte Seeton

I. Heinbieff

S. Ians

Castel

Donde

Broght

St. Andreas

Bas

Rootthoost

Albrot

St. Abben hoofd

Lammerton

I. Maij

t Schaep

Goesrijck

Warnemouth

Dysselsburgh

Bamborugh

t Hilligh eylant

Goutsteen

Plogh

De Schaßen

Stapels

Aslamouth

Coket ofte Cayson eylant

Roße
C. Terbete
Dornoch
Yuiße
I. S. Martin
I. Hiplant
C. de Mobrunt
Lawernes
Norne
Tinderne
Aberdin
Slaues
Out Aberdin Ethan
Furne
Douem
Peſloge
Spiboort
Stri
Boekeneß
Boekenes
Specyſlaw
Banſe
Plata
I. Conet
Orcaneß
Orcades Insulæ
PORONIA

wards from the town, ſo that you may plainely ſee through betwixt the mill and the towne, then you shall not faile to faile upon that riffe.

For to ſail into the Thees.

For to ſayle into Teeſe comming from the north wardes, you muſt obſerve theſe markes following. A good wayes to the nortwardes of Hartlepoole, a little to the ſoutwardes of Sonderland, and a little within the land lye upon the high land, two hommocks cloſe one to the other verie good to beknown, of faſhion like wornens breaſts, called the Paps, keepe theſe two hommocks even without the point of Hartlepoole, which shall then ſtand from you northweſt & by north, and ſayle ſo on to the ſouthwardes, and you ſhall fall before the Tees, and shall not ſayle too neare the ſands that lie out before the mouth of the Tees, and lye off aboute a halfe league into ſea.

The Paps

On both ſides, as wel on the north ſide, as the ſouth ſide of the Tees ſtand two little white houſes for firebeakons: If you come from the northwardes and get ſight of them, then bring firſt the 2 ſouthermoſt one in the other, which ſhall then ſtand from you ſouth and by eaſt, ſaile right in with them, until that the other two, which ſtande on the north ſide of the Teeſe, come alſo one in the other, them leave them on the ſouth ſide, and ſaile in right with them that ſtand on the north ſide, and ſo you shall runne in amidſt the channel, there is upon the barre, or ſhouldeſt, at low water no more then five foote, but it floweth there with a common tide, atleaſt two fathom up and downe. A ſouthweſt mone maketh there full ſea. If when you come from the ſouthwardes, you will ſaile into the Teeſe, then bring the innermoſt of the two firebeakons (which ſtande on the north ſide (at leaſt a handſpikes length, or the length of a capſtone barre, to the northwardes of the other, and runne ſo weſtwardes towardes them, untill that the two fire beacons on the ſouth ſide are one in the other, thē ſaile in right with them, as hat beene ſaide, untill that the two firebeacons on the north ſide come one in the other: when you have them one in the other, runne in right with them, untill that you come by the north ſhore, & thē cloſe alongſt by it.

When as that you come ſo farre in paſt the firſt fire beakon, to wete that you may ſee Hartlepoole betwixt the two firebeakons, there you may ancker in three, four, or five fathome, or when Hartlepole commeth betwixt the foreſaide firebeakons, then go ſoutſouthweſt, untill that you come by the ſouth ſhoare there it is alſoo good anckering. Further it is pilots water unto Stockton, for there within, the Deepes doe ſhifte oftentimes, and that in ſhorte time, tree, four, or five times in a ſummer.

He that will ſaile in there with northerlie windes and a floud, muſt reckon well his tides, for the floude falleth ſtrong to the ſouthwardes over the groundes, and should there by bee lightlie carried beinde the bank to the ſouthwardes of the buye, which lyeth upon the pointe of the banck.

For to ſail in to the newe channell.

Beſides this foreſaide channell there runneth yet another channell through the groundes, which lie off from the north poynt of the Tees For to ſaile in there, you muſt take marke of the two high lands within the land, to the ſouthwardes of the Tees, bring them within a handſpikes length one to the other, or bring the Paps to the weſt ſide of Hartlenope, then shall alſo the foreſaide two high lands come within a handſpikes length neare on to the other, ſaile in right with them, and ſo you shall runne right into that new channell, alongſt through that aforeſaide ſand, and come againſt the buye (upon the ſandes, on the ſouth ſide of the Deepe) againe in the right farewaye. When that you get again deeper water, or have the 2 firebeacons on the north ſide one in the other, then go in towards them, and further as hat been before ſaid,

About ſeven leagues to the northwardes of the Tees lyeth the river of Sonderland, a little to the northwardes of the Paps, which are very good markes for to know the land by there abouts, When the Paps are ſ. ſ. w. from you, and that you are about an English mile from the land, then you are right before the river of Sōderland, the ground is there abouts indifferent cleane, but ſomewhat ſtonie, you may ancker there in 4, 5, and 6 fathom. On both ſides, as well on the north pointe, as the ſouth poynte of the River it is ſtonie. On the north pointe ſtandeth a beacon in the water, there you muſt runne in, within a litle ſhippes length alongſt by it, being paſt that you shall gette deeper water, to with, a fathom and halfe, and 2 fathom at low water, but upon the barre remaineth no more then three foote. With a common ſpring & high water there is about 2 fathom & a half, or a little more.

Sonderland.

After this aforeſaid firſt depth of a fathom & a halfe or 2 fathom, you shal meete againe with a ſtonie floore, about 3 ſhips lenghts broad, upon it is at high water about eleven or twelve foote deep, according as the tydes shal runne: being over ther, it is again deeper. A little paſt that is a narrow place, where a long shippe shall ſcarce be able to wend, within it, it is wide enough, and every where good anckerground.

From the Tees to Tinmouth the courſe is n. n. w. 8 or 9 leagues. Two leagues to the ſouthwards of Tinmouth lyeth the poynte of Sonderland, but cloſe to the ſouthwardes of Tinmouth goet in the river of Newcaſtle. From the poynt of Tinmouth shooteth off a ledge of rocks, you muſt ſayle in by it, leaving it on the ſtarboarde ſide. The markes for to ſayle into this River are two firetowres or firebeakons, which ſtand upon the north shoare, bring them one in the other, or the innermoſt (that is the higheſt) a little to the northwardes of the outermoſt or loweſt, & ſayle ſo right in, alongſt by the aforeſayd ledge of rocks on the n. ſide, & ſo you shall have upon the shouldeſt 2 fathem at halfe floud, a ſ. w. moone maketh there ful ſea. The ſouth shoare is flatte you may leade it in there with the ſounding pole, for ships, that goe not deepe, in ten foote at halfe floude. When you come within, runne all alongſt by the n. shoare, until paſt the little towne Sheels, edge then over to the other shoare, untill you come through the crooked reach, there the river lyeth up againe a little to the northwardes, & then to the ſouthwardes to Hawkes-bill, & about by it to the towne Newcaſtle.

Bly.

Seven or eight leagues to the northwards of Tinmouth lyeth the Cocke Iland, Betwixt them both about half wayes lyet a River called Bly, where the French men doe much ſayle to fetch coale. From the n. poynt of this river runneth off a ledge of roks a great shot of a caſt-peece, about ſouth-eaſt into the ſea, but the ſouth ſide, & the coaſt to the ſouth wards of it, is very cleane & ſand-ſtrand. Upon the ſouthpoint ſtand 2 beacons: If you will ſaile in there, bring them one in the other, and ſaile right in with them, and then you can take no hurt of the foreſayd ledge or riffe of the northpoynt. When that you come by or thwart of the outermoſt of the 2 foreſaid beacons, you shall ſee there by it another ſmaller beacon, that ſtandeth upon a little ledge of Rocks, that shooteth off from the ſouth point, leave that on the Lar-board-ſide, and runne in alongſt cloſe about north wards of it. The foreſaid ledge of Rockes on the northſide remaineth at high water (a good wayes from the land, and alſo at a ſpring-tide) above water, within it is a bight, there it is good lying for a north or northeaſt winde, and there remaineth at low water 2 fathom depth. In the mouth of the River it is with an ordinary tide and high water about 2 fathom deep, or ſomewhat more, and in floweth there 2 fathom up & downe, ſo that at low water it falleth almoſt altogether dry.

Cocker Iland.

The Cocker Iland, is a very little Iland, & not high, it lyeth about a halfe league frō the land, you may come to anker in it for an eaſt, ſouth, & ſoutheaſt winde, but the winde comming to the northwards of the eaſt, maketh there a bad roade, for you muſt lye betwixt the Iland & the maine land where you have no shelter for a north winde. On the ſouthſide of the Iland the grounde is foul, & a little to the ſouthwards of the Iland, runneth of a foule ledge of rocks from the shoare, untill thwart or paſt the Iland. He that commet from the ſouthwards, muſt keepe the Caſte of Bambrough without the Iland, or els he ſhould not faile to ſaile upon the point of that foreſaid ledge.

Betwixt that ledge & the iland it is alſo very narrow, ſo that

that a man ſtanding at low water marke upon the rockes of this ledge, ſhould allmoſt be able to caſt with a ſtone unto the iland. For to ſayle in there, take heed unto theſe marcks hereafter deſcribed: there ſtandeth a houſe upõ the ſea ſide, which is a ſalt kettell, and alſo a caſtle ſomewhat further in within the land, which doth ſhewe it ſelf high enough, bring them one in the other, & then they ſhal ſtand ſomewhat more northerlye then weſt from you, and runne ſo right in with them, and ſo you ſhall runne in right amidſt the channell betwixt both, being come within, edge up behinde the Iland, & ancker there in 5 or 6 fathom.

Sonderland.

About this Iland there run alſo manie more divers little Rivers into the land, but they fal moſt drie at low water.

Staples.

From the Cocket Iland to the Staples the courſe is north northweſt eight or nine leagues. The Staples, that are high Ilands & rocks right to the eaſtwards of Bambrough, lying at leaſt three leagues from the land northeaſt into ſea, a little to the northwards of them lyeth the Holie Iland. To the ſouth wardes or the weſtwardes of the Holie Iland is a baye, where you may lye landlockt almoſt for all windes, againſt the Caſtle is the beſt roade: you may alſo run in there from the ſouthwards, through betwixt the Staples and the mayne land.

Holy Iland.

Betwixt the Staples & the Holy Iland lye two ſuncken Rocks, which at low water come verie neere even with the water, the weſtermoſt towards the Holy Iland, is called the Goldſtone, the eaſtermoſt by the ſtaples, is called the Plough. For to avoid them when you will ſayle through betwixt the Staples & the Holy Iland, whether you come from the Southwards or the Northwards, then bring the Steeple of Teuſtenbrough over the Caſtle of Bambrough & keepe them ſo ſtanding, & then you ſhall run through betwixt them both, this channell lyeth ſo through Northeaſt & Southweſt. From the outermoſt end of the Staples to S. Abbens head, the courſe is N. weſt ſeven or eight leag.

Goldſtone Plough.

From Holy Iland to S. Abbens head it is n. n. w. ſeven or eight leagues.

S. Abbens head.

To the northwards of S. Abbens-head men doe runne in unto Lieth & to Edenbrough in Scotland.

S. Abbens head & the Iland the Bas lye eaſt & weſt foure leagues aſunder. The Iland May & S. Abbens head North weſt & ſoutheaſt foure great leagues. May & Bas lye one from the other ſouthweſt & by weſt and northeaſt and by eaſt three leagues & a halfe. The Bas is a high round Rocke cleane round about, which you may ſayle alongſt by on both ſides. Betwixt the Rocke & the ſouth Shoare it is ten and twelve Fathom deepe, but the common faire way is alongſt to the Northwards of it. Betweene S. Abbens head and the Bas it is moſt part acleane Coaſt, but without anker ground.

The Bas.

Iland May

The Iland May is greater then the Bas, & alſo cleane round about, except on the eaſt ſide, there it is foule.

From S. Abbens head alongſt to the northweſt of the Bas, the courſe is weſt and by north & weſt northweſt foure leagues, and from by north the Bas to the Iland Inchkieth weſt & weſt and by north about five leagues. Betweene the Bas & Inchkieth by the ſouth ſhoare lye many Rockes, litle Ilands and foule gronds, where at divers places is road, but are not to be uſed, but by them which are there verie well acquainted. Inchkieth and the Iland May lye ſouthweſt & by weſt, & northeaſt and by e. ſeven great leagues aſunder. Inchkieth is ſomewhat a long ſmall Iland, a league to the northwards of it lyeth an out-poynt on the north coaſt called Kingorneſſe, before it and about it lie ſome little Rocks under water but a little to the eaſtwards of the point is good ancker grond & road for weſterly winds. Betweene that poynt and the Iland May, or the poynt of Fifsnes on the n. ſhoare lye divers little Havens, where of ſome of them doe alſo yeeld out coales, but are little or notting uſed by the Hollanders. On both ſides of Inckieth is good ground, & good lying as well for weſterly as eaſtely winds.

Inchkieth

Kingorneſſe.

Lieth.

From Inckieth to Lieth it is ſoutheaſt a league. Before Lieth about halfe an Engliſh Mile from the ſhoare lyeth a Rocke upon which ſtandeth a Maſt (with a croſſe or ſome other thing of wood upon the top of it) for a beakon. At high water the Sea floweth over it, and low water it falleth dry. With a ſpring tyde at low water men may goon on foot to it. From the eaſt ſide of that Rocke lyeth off a Riffe almoſt unto Inchkieth, You may alſo run through to the Southwards of Inchkieth betwixt that foreſayd Riffe & the ſouth ſhoare, but it is not to be done, but by them which are there exceding well acquainted: There it is altogether fuill of Rockes & foule ground. When as you ſayle in to the northwards of Inchkieth you muſt leave the foreſayd Maſt on the Larboard ſide, & run about to the northwards of it, & then towards the ſouth ſhoare, and ancker about halfe an Engliſh Mile by weſt Lieth, and alſo halfe an Engliſh Mile from the ſhoare, in ſixe, ſeven or eight Fathom. Lieth is the Haven of Edenbrough, at tyde Haven which falleth dry at low water.

queenes Ferie.

From Lieth to Queenes Ferrie there lye on both ſides many Rockes, ſome above and ſome under water. In the Narrow before Queenes Ferrie lyeth a little Iland called Inchgarve which you muſt runne alongſt to the northwards of, on the ſouth ſide it is with a Stone bancke (where men may goe over at low water) faſt to the mayne Land, alongſt to the northwards of it, it is cleane and deepe. Within that little Iland lye Caryn and other places more where men doe lade Coales.

Under the eaſt ſide of the Poynt to the Northwardes of Queenes Ferrie is good road in 2, 3, or 4 fathom, according as you lye farre from the ſhoare.

Fifsnes.

A league North from the Iland May lyeth the poynt of Fifsnes, lying from S. Abbens head northweſt and by north five great leagues. From thence to Dondee it is northnorthweſt five leagues.

Dondee.

Dondee is a good Haven which goeth in betwixte two high Lands, being within men doe ancker before the Towne. Farther in upon the River lyeth another Towne called S. Iohns, which you may goe up to at high water.

S. Iohns.

Betweene the poynt of Fifsnes and Dondee lyeth alſo the Baye of S. Andrewes, there is all over good ancker ground. Foure great leagues n. & by e. from the poynt of Fifsnes, & northeaſt from S. Andrewes lyeth a great Rocke called the Inchkap, which the Sea floweth over at high water, and at low water it falleth ſo dry, that the Fiſhhermen goe upon it.

S Andrewes.

Inchkap.

Monroſſe.

Seven leagues to the northwards of Dondee lyeth Monroſſe, a good Haven. Firſt you muſt ſayle in there amidſt the Channell, and then edge up to the northwards & ancker before the Towne.

Redhead.

Betwixt Dondee and Monroſſe lyeth an out point called Redhead, about a great League to the Southwards of Monroſſe. There ſtandeth a high Tower upon the Land called Albrot.

ſtonebaye

From Monroſſe to Stone Baye or De Torre, the courſe is northeaſt & by North foure leagues. This is a deepe bay & a good Haven for theſe that are bound to the ſouthwardes, where men may lye Land-Lockt with many Schips.

Aberdyn.

Tree leagues to the northwards of it lyeth Aberdyn: In this Havens mouth it is three fathom deep. The weſt point is ſomewhat foule, therefore you muſt run in by the eaſtland, untill you come within the Haven, & anckor before the Towne in foure or five Fathome. Up to the northwardes is a great Bay, but is ſhowld on both ſides. There goeth through a little Creeke towards old Aberdyn, which is an old ruinous Towne.

Boockenes.

From Aberdyn to Boockenes the courſe is northnorth e. twelve or thirteene leagues. Betwixt them both lyeth a tyde Haven. Boockenes is a high Hilland lyeth upon the ſouth ſide of the point. To the northwards of Boockenes lyeth a Bay as a Haven called Spy or Spilaert. From thence the land lyeth in weſt & weſt ſouthweſt unto the Haven of Roſſe or Luvernes.

Spy.

Ceterbate

To the northwards of Roſſe lyeth an out poynt called Cape Terbate, right in the buttome of the Baye betwixt Catnes and Boockenes, diſtand from Boockenes about 19 or 26 leagues. In this baye manie havens and founds, which are deep enough for to come into with great ſhips. It is from thence to Catenes 26 leagues n. e. & by n. Catanes lyeth from Boeckenes n. w. and n. w. and by north 21 or 22 20 leagues.

From thence the Deep lyeth in alongſt by the beakons about ſouth to the third beakon, being paſt that weſtſouthweſt, & then by little and little, more weſterly & northerly, but run all alongſt by the beackons, leaving them on the ſtarboard ſide, at laſt on north into the River.

Upon the poynt of the river ſtandeth a houſe, which is a ſheephouſe, before that you come by it, it ſeemeth as if there were no opening, by reaſon that it is al evē green land, run in by it, all alongſt by the land, being paſt it, the River doth open it ſelf. Being come within the poynts you muſt run in betwixt two dikes, a league up untill you com before the towne, in the river it is at half floud everie where deep ynough. When as that you come a litle within the houſes of the towne on the larboard ſide, there you muſt let fall your anker, and ſtay untill that the water begin to fall, then you ſhall have floud enough for to drive to the Kay, there you make faſt with one cable, it doth not begin to ebbe there, before that water be fallen three foot.

An eaſt and weſt moone maketh in Boſton deepe the higheſt water, but before the towne an eaſt and by ſouth and eaſt ſoutheaſt moone. He that commeth from Boſton, and wil ſaile out at the deep with a high water, let him look out for the foreſaid high land within Lagernes, when that cometh behinde the poynt of Lagernes, then he may boldly ſet his courſe whether he diſireth to be, either to the eaſtwards, northeaſtwards or northwards, there is no thing then that can hurt him.

From Lagernes to the Hommer it is aboute ſeven leagues, moſt north, betwixt them both, about a league to the ſouthwards of the Hommer lyeth a place called Saltfleet haven, a little to the northwards of a ſharpe ſteeple called Wilgrip. Thwarte of that foreſaid Saltfleet haven, about an Engliſh mile from the ſhoare lyeth a banck or Sandplate, not verie great, which a low water falleth almoſt drye, you muſt runne about without it, & leave it lying towards the land from you, but yet for need you may alſo ſail through within it.

Saltfleet haven.

How to ſail into the Hommer.

For to ſaile into the Hommer comming from the northwards, you muſt ſaile alongſt by the ſhoare, and runne about by the north poynt, but comming by the poynte you muſt keepe ſomewhat off from the ſhoare in foure or five fathome, for to avoide a little taile, which lyeth off from the poynt, being about it, runne to the little Iland, which lyeth a little by weſt that foreſaid north poynt.

If comming from the ſouthwards you deſire to ſaile to the Hommer, then bring the Pawle Steeple (which is a high ſharpe Steeple ſtanding on the North ſide of the Hommer) a little by ſouth the North poynt of the Hommer, or over that foreſaid little Iland, and ſaile ſo right in with it, untill that you come by that little Iland, being come by it, leave it on the ſtarboard ſide and run in cloſe by it, for to avoid a great Sand called the Bul, which lyeth off from the South ſhoare almoſt unto that little Iland. When that you come within that little Iland, then bring the two Beakons (which ſtand upon that little Iland) one in the other, keepe them ſo ſtanding, and ſaile ſo on the Weſtwards towards Grimſby, you leave the Buye upon the Bull lying then on the Larboard ſide, and run along to the Northwards of it: In this faire way it is ſeven and eight Fathom deepe. You may not come neerer the Bull then in ſixe Fathome. Before Grimſby you may ancker in three or foure fathome at lowe water, it floweth there at leaſt three fathome up and down, a weſtſouthweſt and eaſt northeaſt Moone maket before the Hommer the higheſt water. Within the foreſaid little Iland at the North poynt of the Hommer, you may ancker in three or foure fathom: There lie commonly Schips that are bound out, and tarrie for the Wind.

Road before Grimſby.

From Grimſby in alongſt to Hull, the courſe is weſt n. weſt to the end of the Bancke or ballaſt plate, which you muſt leave lying on the north ſide. On the South ſide lyeth alſo a little plate, there ſtandeth commonly a Beakon upon it, that you muſt leave on the Larboard ſide, and run along to the Northwards of it, being paſt it, you may run alongſt by the South ſhoare in three fathom. The faire way there is foure, five, and ſixe, and thwart of the foreſaid Beackon eight and tenne fathom. When you come to the end of the Banke, you muſt edge up to the Weſtwards about by the Point on the ſouth ſide, but there runneth off a Flat which you muſt avoid. Being a little about that Poynt you ſhall ſee the Towne of Hull, lye before you, there you may anckor before it in ſixe, ſeven, or eight fathom: An Eaſt & Weſt Moon maketh full ſea before Hull. He that will anckor upon the ballaſt plate, let them bringh the flat ſteeple which ſtandeth a little to the Northwards or the eaſtwards of Hull to the high poynt of Pael, and keepe them ſo ſtanding untill that he come to the plate, there it is beſt for to anckor upon it.

From the North poynt of the Hommer called Spurne head to Flambrough head, the courſe is north and by weſt eight or nine Leagues, betwixt them it is ſhowld water of ſix, ſeven, and eight fathom deepe. Flambrough head hath many white ſpots and Chalke Hils, eſpecially upon the north ſide towards Fyley. Flambrough hath a Head or Piere. A league to the weſtwards of it on the ſouth ſide lyeth a little Towne called Burlington, which hath alſo a Piere. You may ankor therein the Baye in ſix or ſeven fathō.

Flambrong head.

Burlington.

Three leagues by weſt Flambourgh head lyeth Fyley, in a rounde baye to the ſouthwardes of a poynt that lyeth out, which hath a Pier or Head, where you may lye within it, but it falleth there drie at lowe water.

Fyley.

Without the head of Fyley lyeth a rock under water, called Fyley bridge, betwixt it and the Pier you may well lie aflote with a ſhippe of an hundred laſts, in five fathome at low water, and have ſhelter for a northeaſt and eaſt winde.

Fyley Bridge.

From the poynt of Fyley to Scharbrough it is northweſt two leagues. Scharbrough hath two Pieres or Heads, where you may runne within them at high water from the ſouthwardes, but at low water it falleth there alſo drie. Men com in there from the ſouthwardes.

Scharbrough.

From Scharbrough the coaſte lyeth alongſt by Robbinhoods bay, until before Whidbye, moſt northweſt, but paſt whidbie the land falleth in weſtnorthweſt, and by little & little more weſterly unto the Tees.

Robbinboods bay.

whidbye.

Robbenhoods baye is a good roade for a ſouthſoutweſt and weſt winde, there men lie in 7 or 8 fathome.

Whidby is a tide haven, which falleth drie at lowe water, at the eaſt ſide of the haven runneth off a riffe of rocks, where of you muſt take heede. For to ſaile in there, you muſt runne in betwixt the two beackons, untill that you come in betwixt the two lands, and ancker there.

From Whidbie to the Teeſe the coaſt lyeth moſt weſtnorthweſt, and weſt and by north, about ſeven leagues, betwixt both lye Huntley foote & Redecliffe. Huntley foote is a high hill, lying on the ſea ſide, aboute foure leagues to the eaſtwardes of the Tees. Redecliffe lyeth aboute halfe wayes betwixt Huntleyfoote and the Tees, it is a cliffe off ſuch verie redde earth, that when the ſunne doth ſhine againſt it, it is to ſee to like redde cloth: theſe two are verie good markes, for to knowne this coaſt by.

Hundleyfoot.

Redeliffe.

Cloſe to the ſouthwardes of the mouth of the Teeſe lye three Riffes, which lye aboute a halfe league eaſtnortheaſt into ſea, which are verie foule and ſtonie, and fall drie at low water, upon the north ſide they are verie flatte, ſo that you may ſounde aboute by them, in five, ſixe and ſeven fathome, but on the ſouth ſide are ſo ſteepe, that comming neare them, and ſounding in 13 and 14 fathom, you ſhould be upon them, before you ſhould beable to heave the lead the ſecond time.

A league and halfe to the northwardes of the Teeſe lyeth Hartlepoole, upon a poynte that lyeth out almoſt like an Iland. For to goe in there you muſt runne in to a bight to the ſouthwards of the towne with in a head, until you come againſt the towne, there you ſhall lie drie at low water.

About halfe waies betwixt Hartlepoole and the Teeſe, runneth off alſo a riffe of rocks thwart from the ſhore a good wayes into ſea, come no nearer it then or 5 or 6 fathome. There ſtandeth a mill to the northwardes of the towne Hartlepoole, if you keepe that to the weſt ſide of the towne Hartlepoole, then you can not ſail upon that foreſaid riff, but if you bring the foreſaid mil a little to the weſt-

Hartlepoole.

wards from the town, ſo that you may plainely ſee through betwixt the mill and the towne, then you shall not faile to faile upon that riffe.

For to ſail into the Thees.

For to ſayle into Teeſe comming from the north wardes, you muſt obſerve theſe markes following. A good wayes to the nortwardes of Hartlepoole, a little to the ſoutwardes of Sonderland, and a little within the land lye upon the high land, two hommocks cloſe one to the other verie good to beknown, of faſhion like wornens breaſts, called the Paps, keepe theſe two hommocks even without the point of Hartlepoole, which shall then ſtand from you northweſt & by north, and ſayle ſo on to the ſouthwardes, and you ſhall fall before the Tees, and shall not ſayle too neare the ſands that lie out before the mouth of the Tees, and lye off aboute a halfe league into ſea.

The Paps

On both ſides, as wel on the north ſide, as the ſouth ſide of the Tees ſtand two little white houſes for firebeakons: If you come from the northwardes and get ſight of them, then bring firſt the 2 ſouthermoſt one in the other, which ſhall then ſtand from you ſouth and by eaſt, ſaile right in with them, until that the other two, which ſtande on the north ſide of the Teeſe, come alſo one in the other, them leave them on the ſouth ſide, and ſaile in right with them that ſtand on the north ſide, and ſo you shall runne in amidſt the channel, there is upon the barre, or ſhouldeſt, at low water no more then five foote, but it floweth there with a common tide, atleaſt two fathom up and downe. A ſouthweſt mone maketh there full ſea. If when you come from the ſouthwardes, you will ſaile into the Teeſe, then bring the innermoſt of the two firebeakons (which ſtande on the north ſide (at leaſt a handſpikes length, or the length of a capſtone barre, to the northwardes of the other, and runne ſo weſtwardes towardes them, untill that the two fire beacons on the ſouth ſide are one in the other, thē ſaile in right with them, as hat beene ſaide, untill that the two firebeacons on the north ſide come one in the other: when you have them one in the other, runne in right with them, untill that you come by the north ſhore, & thē cloſe alongſt by it.

When as that you come ſo farre in paſt the firſt fire beakon, to wete that you may ſee Hartlepoole betwixt the two firebeakons, there you may ancker in three, four, or five fathome, or when Hartlepole commeth betwixt the foreſaide firebeakons, then go ſoutſouthweſt, untill that you come by the ſouth ſhoare there it is alſoo good anckering. Further it is pilots water unto Stockton, for there within, the Deepes doe ſhifte oftentimes, and that in ſhorte time, tree, four, or five times in a ſummer.

He that will ſaile in there with northerlie windes and a floud, muſt reckon well his tides, for the floude falleth ſtrong to the ſouthwardes over the groundes, and should there by bee lightlie carried beinde the bank to the ſouthwardes of the buye, which lyeth upon the pointe of the banck.

For to ſail in to the newe channell.

Beſides this foreſaide channell there runneth yet another channell through the groundes, which lie off from the north poynt of the Tees. For to ſaile in there, you muſt take marke of the two high lands within the land, to the ſouthwardes of the Tees, bring them within a handſpikes length one to the other, or bring the Paps to the weſt ſide of Hartlenope, then shall alſo the foreſaide two high lands come within a handſpikes length neare on to the other, ſaile in right with them, and ſo you shall runne right into that new channell, alongſt through that aforeſaide ſand, and come againſt the buye (upon the ſandes, on the ſouth ſide of the Deepe) againe in the right farewaye. When that you get again deeper water, or have the 2 firebeacons on the north ſide one in the other, then go in towards them, and further as hat been before ſaid,

About ſeven leagues to the northwardes of the Tees lyeth the river of Sonderland, a little to the northwardes of the Paps, which are very good markes for to know the land by there abouts, When the Paps are ſ. ſ. w. from you, and that you are about an English mile from the land, then you are right before the river of Sōderland, the ground is there abouts indifferent cleane, but ſomewhat ſtonie, you may ancker there in 4, 5, and 6 fathom. On both ſides, as well on the north pointe, as the ſouth poynte of the River it is ſtonie. On the north pointe ſtandeth a beacon in the water, there you muſt runne in, within a litle ſhippes length alongſt by it, being paſt that you shall gette deeper water, to with, a fathom and halfe, and 2 fathom at low water, but upon the barre remaineth no more then three foote. With a common ſpring & high water there is about 2 fathom & a half, or a little more.

Sonderland.

After this aforeſaid firſt depth of a fathom & a halfe or 2 fathom, you shal meete againe with a ſtonie floore, about 3 ſhips lenghts broad, upon it is at high water about eleven or twelve foote deep, according as the tydes shal runne: being over ther, it is again deeper. A little paſt that is a narrow place, where a long shippe shall ſcarce be able to wend, within it, it is wide enough, and every where good anckerground.

From the Tees to Tinmouth the courſe is n. n. w. 8 or 9 leagues. Two leagues to the ſouthwards of Tinmouth lyeth the poynte of Sonderland, but cloſe to the ſouthwardes of Tinmouth goet in the river of Newcaſtle. From the poynt of Tinmouth shooteth off a ledge of rocks, you muſt ſayle in by it, leaving it on the ſtarboarde ſide. The markes for to ſayle into this River are two firetowres or firebeakons, which ſtand upon the north shoare, bring them one in the other, or the innermoſt (that is the higheſt) a little to the northwardes of the outermoſt or loweſt, & ſayle ſo right in, alongſt by the aforeſayd ledge of rocks on the n. ſide, & ſo you shall have upon the shouldeſt 2 fathem at halfe floud, a ſ. w. moone maketh there ful ſea. The ſouth shoare is flatte you may leade it in there with the ſounding pole, for ships, that goe not deepe, in ten foote at halfe floude. When you come within, runne all alongſt by the n. shoare, until paſt the little towne Sheels, edge then over to the other shoare, untill you come through the crooked reach, there the river lyeth up againe a little to the northwardes, & then to the ſouthwardes to Hawkes-bill, & about by it to the towne Newcaſtle.

Bly.

Seven or eight leagues to the northwards of Tinmouth lyeth the Cocke Iland, Betwixt them both about half wayes lyet a River called Bly, where the French men doe much ſayle to fetch coale. From the n. poynt of this river runneth off a ledge of roks a great shot of a caſt-peece, about ſouth-eaſt into the ſea, but the ſouth ſide, & the coaſt to the ſouth wards of it, is very cleane & ſand-ſtrand. Upon the ſouth-point ſtand 2 beacons: If you will ſaile in there, bring them one in the other, and ſaile right in with them, and then you can take no hurt of the foreſayd ledge or riffe of the north-poynt. When that you come by or thwart of the outermoſt of the 2 foreſaid beacons, you shall ſee there by it another ſmaller beacon, that ſtandeth upon a little ledge of Rocks, that shooteth off from the ſouth point, leave that on the Lar-board-ſide, and runne in alongſt cloſe about north wards of it. The foreſaid ledge of Rockes on the north-ſide remaineth at high water (a good wayes from the land, and alſo at a ſpring-tide) above water, within it is a bight, there it is good lying for a north or northeaſt winde, and there remaineth at low water 2 fathom depth. In the mouth of the River it is with an ordinary tide and high water about 2 fathom deep, or ſomewhat more, and in floweth there 2 fathom up & downe, ſo that at low water it falleth almoſt altogether dry.

Cocker Iland.

The Cocker Iland, is a very little Iland, & not high, it lyeth about a halfe league frō the land, you may come to anker in it for an eaſt, ſouth, & ſoutheaſt winde, but the winde comming to the northwards of the eaſt, maketh there a bad roade, for you muſt lye betwixt the Iland & the maine land where you have no shelter for a north winde. On the ſouth-ſide of the Iland the grounde is foul, & a little to the ſouthwards of the Iland, runneth of a foule ledge of rocks from the shoare, untill thwart or paſt the Iland. He that commet from the ſouthwards, muſt keepe the Caſte of Bambrough without the Iland, or els he ſhould not faile to ſaile upon the point of that foreſaid ledge.

Betwixt that ledge & the iland it is alſo very narrow, ſo that

that a man ſtanding at low water marke upon the rockes of this ledge, ſhould allmoſt be able to caſt with a ſtone unto the iland. For to ſayle in there, take heed unto theſe marcks hereafter deſcribed: there ſtandeth a houſe upõ the ſea ſide, which is a ſalt kettell, and alſo a caſtle ſomewhat further in within the land, which doth ſhewe it ſelf high enough, bring them one in the other, & then they ſhal ſtand ſomewhat more northerlye then weſt from you, and runne ſo right in with them, and ſo you ſhall runne in right amidſt the channell betwixt both, being come within, edge up behinde the Iland, & ancker there in 5 or 6 fathom.

Sonderland.

About this Iland there run alſo manie more divers little Rivers into the land, but they fal moſt drie at low water.

From the Cocket Iland to the Staples the courſe is north northweſt eight or nine leagues. The Staples, that are high Ilands & rocks right to the eaſtwards of Bambrough, lying at leaſt three leagues from the land northeaſt into ſea, a little to the northwards of them lyeth the Holie Iland. To the ſouth wardes or the weſtwardes of the Holie Iland is a baye, where you may lye landlockt almoſt for all windes, againſt the Caſtle is the beſt roade: you may alſo run in there from the ſouthwards, through betwixt the Staples and the mayne land.

Staples.

Holy Iland.

Betwixt the Staples & the Holy Iland lye two ſuncken Rocks, which at low water come verie neere even with the water, the weſtermoſt towards the Holy Iland, is called the Goldſtone, the eaſtermoſt by the ſtaples, is called the Plough. For to avoid them when you will ſayle through betwixt the Staples & the Holy Iland, whether you come from the Southwards or the Northwards, then bring the Steeple of Teuſtenbrough over the Caſtle of Bambrough & keepe them ſo ſtanding, & then you ſhall run through betwixt them both, this channell lyeth ſo through Northeaſt & Southweſt. From the outermoſt end of the Staples to S. Abbens head, the courſe is N. weſt ſeven or eight leag.

Goldſtone Plough.

From Holy Iland to S. Abbens head it is n. n. w. ſeven or eight leagues.

S. Abbens head.

To the northwards of S. Abbens-head men doe runne in unto Lieth & to Edenbrough in Scotland.

S. Abbens head & the Iland the Bas lye eaſt & weſt foure leagues aſunder. The Iland May & S. Abbens head North weſt & ſoutheaſt foure great leagues. May & Bas lye one from the other ſouthweſt & by weſt and northeaſt and by eaſt three leagues & a halfe. The Bas is a high round Rocke cleane round about, which you may ſayle alongſt by on both ſides. Betwixt the Rocke & the ſouth Shoare it is ten and twelve Fathom deepe, but the common faire way is alongſt to the Northwards of it. Betweene S. Abbens head and the Bas it is moſt part acleane Coaſt, but without anker ground.

The Bas.

Iland May

The Iland May is greater then the Bas, & alſo cleane round about, except on the eaſt ſide, there it is foule.

From S. Abbens head alongſt to the northweſt of the Bas, the courſe is weſt and by north & weſt northweſt foure leagues, and from by north the Bas to the Iland Inchkieth weſt & weſt and by north about five leagues. Betweene the Bas & Inchkieth by the ſouth ſhoare lye many Rockes, litle Ilands and foule gronds, where at divers places is road, but are not to be uſed, but by them which are there verie well acquainted. Inchkieth and the Iland May lye ſouthweſt & by weſt, & northeaſt and by e. ſeven great leagues aſunder. Inchkieth is ſomewhat a long ſmall Iland, a league to the northwards of it lyeth an out-poynt on the north coaſt called Kingorneſſe, before it and about it lie ſome little Rocks under water but a little to the eaſtwards of the point is good ancker grond & road for weſterly winds. Betweene that poynt and the Iland May, or the poynt of Fifsnes on the n. ſhoare lye divers little Havens, where of ſome of them doe alſo yeeld out coales, but are little or notting uſed by the Hollanders. On both ſides of Inckieth is good ground, & good lying as well for weſterly as eaſtely winds.

Inchkieth

Kingorneſſe.

Lieth.

From Inckieth to Lieth it is ſoutheaſt a league. Before Lieth about halfe an Engliſh Mile from the ſhoare lyeth a Rocke upon which ſtandeth a Maſt (with a croſſe or ſome other thing of wood upon the top of it) for a beakon. At high water the Sea floweth over it, and low water it falleth dry. With a ſpring tyde at low water men may goon on foot to it. From the eaſt ſide of that Rocke lyeth off a Riffe almoſt unto Inchkieth, You may alſo run through to the Southwards of Inchkieth betwixt that foreſayd Riffe & the ſouth ſhoare, but it is not to be done, but by them which are there exceding well acquainted: There it is altogether fuill of Rockes & foule ground. When as you ſayle in to the northwards of Inchkieth you muſt leave the foreſayd Maſt on the Larboard ſide, & run about to the northwards of it, & then towards the ſouth ſhoare, and ancker about halfe an Engliſh Mile by weſt Lieth, and alſo halfe an Engliſh Mile from the ſhoare, in ſixe, ſeven or eight Fathom. Lieth is the Haven of Edenbrough, at tyde Haven which falleth dry at low water.

From Lieth to Queenes Ferrie there lye on both ſides many Rockes, ſome above and ſome under water. In the Narrow before Queenes Ferrie lyeth a little Iland called Inchgarve which you muſt runne alongſt to the northwards of, on the ſouth ſide it is with a Stone bancke (where men may goe over at low water) faſt to the mayne Land, alongſt to the northwards of it, it is cleane and deepe. Within that little Iland lye Caryn and other places more where men doe lade Coales.

queenes Ferie.

Under the eaſt ſide of the Poynt to the Northwardes of Queenes Ferrie is good road in 2, 3, or 4 fathom, according as you lye farre from the ſhoare.

A league North from the Iland May lyeth the poynt of Fifsnes, lying from S. Abbens head northweſt and by north five great leagues. From thence to Dondee it is northnorthweſt five leagues. Dondee is a good Haven which goeth in betwixte two high Lands, being within men doe ancker before the Towne. Farther in upon the River lyeth another Towne called S. Iohns, which you may goe up to at high water.

Fifsnes.

Dondee.

S. Iohns.

Betweene the poynt of Fifsnes and Dondee lyeth alſo the Baye of S. Andrewes, there is all over good ancker ground. Foure great leagues n. & by e. from the poynt of Fifsnes, & northeaſt from S. Andrewes lyeth a great Rocke called the Inchkap, which the Sea floweth over at high water, and at low water it falleth ſo dry, that the Fiſhhermen goe upon it.

S Andrewes.

Inchkap.

Seven leagues to the northwards of Dondee lyeth Monroſſe, a good Haven. Firſt you muſt ſayle in there amidſt the Channell, and then edge up to the northwards & ancker before the Towne.

Monroſſe.

Betwixt Dondee and Monroſſe lyeth an out point called Redhead, about a great League to the Southwards of Monroſſe. There ſtandeth a high Tower upon the Land called Albrot.

Redhead.

From Monroſſe to Stone Baye or De Torre, the courſe is northeaſt & by North foure leagues. This is a deepe bay & a good Haven for theſe that are bound to the ſouthwardes, where men may lye Land-Lockt with many Schips.

ſtonebaye

Tree leagues to the northwards of it lyeth Aberdyn: In this Havens mouth it is three fathom deep. The weſt point is ſomewhat foule, therefore you muſt run in by the eaſtland, untill you come within the Haven, & anckor before the Towne in foure or five Fathome. Up to the northwardes is a great Bay, but is ſhowld on both ſides. There goeth through a little Creeke towards old Aberdyn, which is an old ruinous Towne.

Aberdyn.

From Aberdyn to Boockenes the courſe is northnorth e. twelve or thirteene leagues. Betwixt them both lyeth a tyde Haven. Boockenes is a high Hilland lyeth upon the ſouth ſide of the point. To the northwards of Boockenes lyeth a Bay as a Haven called Spy or Spilaert. From thence the land lyeth in weſt & weſt ſouthweſt unto the Haven of Roſſe or Luvernes.

Boockenes.

Spy.

To the northwards of Roſſe lyeth an out poynt called Cape Terbate, right in the buttome of the Baye betwixt Catnes and Boockenes, diſtand from Boockenes about 19 or 26 leagues. In this baye manie havens and founds, which are deep enough for to come into with great ſhips. It is from thence to Catenes 26 leagues n. e. & by n. Catanes lyeth from Boeckenes n. w. and n. w. and by north 21 or 22 20 leagues.

Ceterbate

leagues. From Boeckenes unto the outermoſt Orckanes it is north and noorth & by weſt two and thirtie or three and thirtie leagues.

The Orckeneys are one and thirtie Ilands in number, firſt Wayets or Elhoy, which lieth next to Scotland, five leagues about the poynt. About northnortheaſt off from the poynt of Catenes lye two little Ilands. Pits and Pichlantsſcare there you may run through to the weſtwards betwixt Ilhoey and Scotland.

To the northwardes of them lyeth and Iland called Heynda, with an other Iland called Platta, to the northwardes of Platta lyeth Mayland or Ponoma. On the north ſide of this greate Iland are all the havens where the ſhips come to.

Upon the eaſt ſide of this great Iland lyeth an other Iland called Kabunſa, to the northwards of it lyeth an other Iland at he northeaſt poynt of the greate Iland, you may alſo run through there towards Papeweſter, and leave Sand a lye on the ſtarboard ſide.

Cloſe to Papeweſter lyeth Fara, to the ſouthwards of it is Sirza. To the eaſtwards of Sirza and Fara lye two Ilands, in the middeſt of all theſe Ilands, called Eeda and Chapnoza.

Sanda lyeth to the northwards of al theſe Ilands, but Papa & Stronza lye to the ſouthwards of Sanda.

To the eaſtwardes of Stronſa lyeth an Iland called Cuiſtella, that is the eaſtermoſt Iland of all, the northermoſt is called Ronalze or northernanſe.

Eleven or twelve leagues northweſt from the great Iland lye two rocks, the one under water & the other above water, he that cometh from the weſtwards, muſt take heede of thē.

Of the Depts and Shouldes aboute theſe places, & in what Depts men may ſee the land.

Thwart of winterton & Cromer, ſeven or eight leagues from land, it is eighteene & nineteene fathom deepe, & there you may ſee the land. Northeaſt & northeaſt & by north from Cromer lyeth a Bancke, whereupon remaineth at halfe floud no more water, then 4 fathom, from thence you may ſee the land indifferent well.

North & by Eaſt from Blackeney lyeth a bancke, whereupon remaineth at halfe floud no more water then five fathom. In eightcene fathom thereabouts you may ſee the Land. From thence to the point of Chappell it is all ſhould.

About northnorthweſt & north & by weſt from Winterton-ſand lyeth the banke before Crommer 5 leagues without the coaſt.

To the northwards of the Hommer of Hull you may ſee the land in 25 fathom.

Flambrough-head mē may ſee in five & thertie Fathome.

Scharbroug mē may ſee frō below in five & fortie fathom.

Of the tydes & courſes of the ſtreames, about theſe foreſaid places.

Before Cromer a Southeaſt Moone maketh high water.

At Blakeny, Wels, Bornum and Lyn, an e. & w. Moone.

Before the Hommer of Hull an eaſt northeaſt and weſt ſouthweſt Moone.

From Blackeny to Flambrough-head the floude falleth ſoutheaſt & the Ebbe northweſt.

At Flambrough & Fyley, in the Peer a weſt-ſouthweſt moone maketh full ſea.

At Scharbrough & Robbinhoods-baye a ſouthweſt and northeaſt moone.

In the Tees & at Hartlepoole alſo a ſouthweſt & northeaſt moone.

Before the River of New caſtle a ſ. w. & n.e. moone maketh alſo the higheſt water.

Thwart of Flambrough-head, Scharbrough, the teſe, & alſo thwart of the river of Newcaſtle the floud falleth ſoutheaſt, & the ebbe northweſt.

To the northwards of the Tees, the floude falleth ſouthſoutheaſt alongſt the land, & from the Tees to Scarbrough ſoutheaſt & by eaſt.

On theſe coaſt betwixt Tinmouth & S Abbens-head a ſouthweſt & northeaſt moone maketh high water.

At Lieth in the Haven a ſouthweſt & by weſt moone maketh full ſea.

The floud falleth alongſt theſe coaſtes ſouthſoutheaſt, & the Ebbe northnorthweſt.

At Orcaneſſe & Boecknes a ſouthweſt & n. e. moon maketh high water.

The ſtoudes come about from behind Scotland from the weſtwards throegh betwixt Fayrhill & Orcaneſſe, & make there about full ſea with a ſouthweſt & northeaſt moon.

From Boeckeneſſe the floud falleth ſouth alongſt the coaſt towards Lieth, & the eb n. to the contrarie.

In this fareway it is deep 40, 50, & 60 fathom, in 45, and 50 fathome you may ſee the land. In this fareway in the ſommer the firſt Herrings are caught.

How theſe lands doe lye one from the other, and from other lands.

From Cromer to Blackeney w.n:w. 3 or 4 leag.
Frō Blackeney to Bornum through within the ſand weſt 7 l.
From Bornum to Chappel w.ſ.w. 2 leag.
From Cappel to Elleknock, or the north point of Boſton-deep the courſe is n.w. & by north 5 leag.
From thence to the north point of Cromer north, & north & by weſt 7 leag.
From the north point of the Hommer to Flambroug-head n. n. w. 9 leag.
From the point of Crommer or Shield to the Teſſell eaſt 40 or 42 leag.
From the north point of the Crommer to the Teſſel eaſt & by ſouth & eaſt ſoutheaſt 60 leagues.
From Flambrough-head to Fyley northweſt 3 leag.
From Fyley to Scharbrough n. w. 2 leag.
From Scarbrough to widbye n. w. & by weſt 5 leag.
From Whidbye to the Teeſe, the courſe is firſt w. n. w. and afterwards weſt & by north 7 leagues.
From the Teeſe to Tynmout n. n. w. 8 or 9 leag.
From Whidbuye to Tynmout, the courſe is n.w. & ſ.e. 16 l.
From to Cocket Iland n. n.w. 8 or 9 leag.
From Tynmout to ſtaples north & by weſt 16 leag.
From Staples to Barwike weſtnorthweſt 3 leag.
From Barwike to S. Abbens-head n.n.w. 5 leagues.
From the ſtaples to S. Abbens-head n. w. 8 or 9 leag.
From S. Abbens-head to the Bas weſt 4 leagues.
From the Bas to Inckieth weſt & weſt & by north 5 lea.
From S. Abbens-head to the Iland May n. ●. 4 great lea.
From S. Abbens-head to, Fifsnes n. w. & by north 5 great l.
From Fifsnes to Doonde n.n.w. 5 leag.
From Tinmouth to Scuytenes n.e. 104 leag.
From Tinmouth to the Naze n. e. & by e. eaſterlye 103 le.
From Tinmouth to the Scawe e.n.e. 136 leag.
From Tinmouth to Holy land e. & by ſ. eaſterlye 106 leag.
From Fifsnes to Stone-Bay north & by eaſt 16 leagues.
From Redhead to Monros northweſt 4 leag.
From Monros to ſtone-bay n. e. & by north 4 leag.
From Ston-bay to Boecknes n.n.e. ſomwhat northerly 16 l.
From Aberdine to Boeckenes n.n.e. 12 leag.
From Boeckenes to Phyloort or Spyloort n.n.w. 3 leag.
From Phyloort to the poynt of Elgyn weſt 10 leag.
From the point of Elgyn to the Haven of Roſſe or Luvernes weſt & by ſouth ſomewhat ſoutherly 7 leagues.
From cape de Terbate to Catenes n.e. & by north 16 leag.
From Boeckenes to Ilhoy w. n. w. 5 leagues.
From Boekenes to Catenes n.w. & n.w. & by North 21 lea.
From Boeckenes to the Orcaneys north & by weſt 26 leag.
From Boeckenes to Hanglip, or the ſouth end of Hitland north & by eaſt 53 leag.
From Boeckenes to Scuytenes e. & by n. 69 leag.
Frō Boeckenes to the Naze e. ſomewhat ſouterly 88 or 90 l.
Frō Boeckenes to Boevenbergē in Jutland e. & by ſ. 104 le.
From Boeckenes to Holyland ſ. e: & by e. eaſterlye 123 le.
From Boeckenes to the Teſſell ſ.e. ſoutherly 125 lea.
From Bouckenes to the Holmes before Yaermouth ſouth-ſoutheaſt ſomewhat eaſterlye 98 leag.
Frō Aberdyne to the Holmes before Yaermouth ſoutheaſt and by ſouth 93 leagues.

Heights.

Yaermouth lyeth in 52 degr. 52 minutes.
The north poynt of the Hommer of Hull in 53 deg. 20 m.
Flambrough-head lyeth in 54 degr. 5 min.

Schar-

Verthooninge vande Eÿlanden Hebrides gelegen achter de Noordwesthoeck van Schotlandt

S. Kilda

S. Patricius

Foele
Fulo

Feril

Schawey

De Suydthoeck

Swinborgerhogst

S. Magni
soort

S. Magni

Schotsche Ree

Hamburger
haven ofte
bremerhaven

HIT
LANT

Breesent

Hangsly

IELLO

IELLO

Ielle sondt

Feilo

OLSTO

Witseheren

De Eylanden van Hitlandt Fulo en Faÿerhil

Duÿtsche mÿlen 15 in een graadt

Spaansche mÿlen 17½ in een graadt

Engelsche en Fran. mÿlen 20 in een graadt

FERRO

Hun

Iust

Moggenesholm

MUGGENES

Surwagen

Middel wagen

WAGE

Suntwage

Colsser

Vesten

Stromo

Saxsen

Sando

Schalbost

Littel dimen

Dalsis

Bordewijck

Bordo

Calso

Cimo

In dese vaerk comen veel Walvissen

Widro

Swino

Fulo

De Bisschop Farro

De Eylanden van Fero oste Farre. Tot Amsterdam, By Iacob Aertsz. Colom.

Duitsche mylen 15 in een graadt Lienes d'Allema 15 en un deg

Spaansche mylen 17½ in een graadt Lieues d'espai 17½ en un de

Engel en Fra. mylen 20 in een graadt Lieu Angl et Fra 20 en un degr

Scarbrou
Tynmou
Tynmou
55.de
S. Abbe

Huntleyfoc

us ſheweth th
Flombrou

Tinmouth

hus ſheweth

n this form ſh

Thu

airhill.

Fulo

S. Magnus

Hanglip.

Scarbrough in 54. degr. 12. min.
Tynmouth or the River of Newcaſtle in 55. degrees.
Tynmouth or the River of Newcaſtle lyeth in the height of 55. degrees.
S. Abbenſhead in Scotland in 56. degr. 12. min.
Boeckenes lyeth in the height of 75. degr. 50. min.
Catenes in 58. degr. 32. min.
The greateſt or the outermoſt Iland of the Orckneys in 59. degr. 8. minutes.

How theſe lands doe ſhew themſelves at Sea.

us ſheweth the land betwixt Tinmouth and the hills of Huntleyfoot and Redcliffe, to the ſ. wards of the Teeſe, when you ſaile along by it.

Thus ſheweth the land betwixt the Tees and Flambrough-head when you ſaile alongſt by it.

hus ſheweth the land betwixt Tinmouth and Cocket Iland

Thus ſheweth Boeckenes when you ſaile alongſt by it.

n this form ſheweth the land Catenes, when you ſaile alongſt by it.

Thus ſheweth the n. eaſt point of Orkenes. when you ſayle alongſt by it.

Thus ſheweth the land of Scotland to the northwards Aberdyne, when you ſaile alongſt by it 2. leagues from the land.

The eleventh Demonſtration.

Wherein

Are ſet forth the Coaſt of Fayer-hill, Hitland, and the Ilands there about, as alſo the Ilands of Fero, and ſome Ilands behind the northweſt corner of Scotland.

Fairhill. THe Iland Fairhill lyeth from the e. point of the Orcaneys northeaſt, & from Boeckeneſſe north and by weſt about ſeven and thirty leagues.

On the weſt ſide of Fairhill is at ſome places foule ground, but upon the ſouth-eaſt ſide is good anckorground, there you may anckor every where.

Fulo Fulo lyeth from Fairehill northweſt and by north tenne leagues, betwixt them both lyeth the ſouthermoſt poynt of Hitland, lying from Fairehill n.n.e. 7. or 8. leagues, and from Fulo eaſt and by ſouth foure leagues.

The ſouthweſt coaſt of Hitland, (to wete from the ſouthermoſt poynt to the northweſt poynt) lyeth northweſt and by north ſeven or eight leagues. On the ſame ſouthweſt ſide, over againſt the Iland Fulo lyeth a Sand-bay, where men may anckor, but on the eaſt ſide of this Bay it is ſomewhat foule. From that northweſt or weſt poynt off to the north end, the land of Hitland lyeth northeaſt and ſouthweſt ſeventeene or eighteene leagues.

S. Magnus Two leagues to the northwards of the foreſaid w. poynt lyeth the Haven of S. Magnus, which is a broad Sound, within it is good anckor ground in ſixteen or ſeventeen fathom depth, according as you ſhall be farre within the land. On the north ſide lyeth a high rocke, where you muſt run in to the ſouthwards of. And on the ſ. ſide lyeth two or three rocks, which you muſt leave on the ſtarboard ſide, when you ſayle in there.

Even to the eaſtwards about the ſouth poynt of Hitland, lyeth a fayre Sand-bay, where you may anckor in twelve or thirteen fathom; from thence to Hanglip the courſe is n. eaſt ſomewhat eaſterly 9, or 10. leagues.

Hanglip. Betwixt Hanglip and the ſouth poynt lyeth an Iland, which you may ſayle about on both ſides, within it lyeth Hambrough Haven, or the Scottiſh Haven which is a lade place for the Hamburgers and Scots. This Haven is alſo called Bremer Haven. There lyeth alſo a high ſteepe poynt to the ſouthwards of Hanglip, to the ſouthwards of it men doe runne into Broad ſound, the chiefeſt Haven of all Hitland, which is deepe and hath cleane ground, there men doe lye landlockt for all winds. Hamborough haven. Broad found.

From the Broad Sound lyeth a Sound in alongſt to the northwards, through the land, which cometh out againe into the Sound to the northwards, and ſo maketh an Iland of the land whereupon the high hill Hanglip lyeth. When as you will ſayle in there from the northwards, that is to the northwards of Hanglip, you muſt runne in neareſt by the ſouth ſhoare, and edge to it betimes. In this channell betwixt both lands lye two Ilands or rocks, the greateſt lyeth neareſt the north ſhoare, and the ſmalleſt neareſt the ſouth ſhoare, betwixt them both lyeth alſo a ſuncken rocke, which at low water is uncovered, and at high water you may know it by the breaking upon it. When as you will ſayle in here, you muſt leave the foreſayd greateſt Rocke, with the ſuncken rock, on the ſtarboard ſide, and the ſmalleſt rock on the larboard ſide, there is upon the ſhowldeſt three fathom and a halfe water.

Within this haven lye alſo two havens at the north point, which lye into the land, where is good lying.

When as you will ſaile from this foreſaid haven through within unto the Broad ſound, you ſhall meet, ſcarce halfe wayes with a rock, from which lyeth off a riffe towards the weſt ſhoare thwart of it you muſt runne cloſe alongſt by the weſt ſhoare, for to avoid that riffe.

To the northwards of Hanglip, the land of Hitland lyeth north, n. and by eaſt, and northnortheaſt, at laſt north, and at ſome places you may ſayle in through Hitland, eſpecially to the Northwards of Hanglip, where a faire broad Sound lyeth

lyeth northwest through, there is good anckor ground to finde at some places, for these that are there acquainted. From Hanglip to the northeast point of Hitland, the course
Outscares is n.n.e. ten leagues, there lie some outrocks called the Outschares. From thence alongst to the n. point of Hitland, the course is n. about 4. leagues.

Bloemsonnd A little about the east point goeth in a faire haven, called Bloem sound, lying in southwest. On the west side lyeth a long rock, you must saile in to the eastwards of it, and anckor a little within the Haven, it is there within all cleane sand ground, and good lying. Bloemsound lyeth in first (as hath been said) southsouthwest afterwards south and south and by east, on both sides is good anckor ground, there you may saile altogether through, and come out againe through Iellesound into sea, about the Iland Fero.

Names of the ilands of Fero The greatest and chiefest Ilands of Fero are 12. in number; as Suydro, Sando, Moggenes, Wage, Stromo, Ostro, Calso, Cuno, Bordo, Wydro, Swyno, and Fulo.

The little ilands of Fero are ten, as Littledymen, Stoerdymen, Schuyvo, Dalsfles, Hesden, Trallo Colster, Moggenesholme, the Monck, and the Bishop. Besides these there are yet some rocks and little Ilands, to seven or eight in number.

Suydro The southermost great Iland called Suydro lieth most southeast and northwest, about seven or eight leagues. At the s.e. end of this Iland lieth a high rock, called the Monck,
Monck Somby or Sambie, after the name of the first or southermost haven in Suydro. Betwixt the Monck and the southeast end of the Iland Suydro, is a race or Well, which men must avoid especially with spring tides.

Upon the west side of the Iland Suydro are no havens for to save any shippes in, but it is altogether high steepe land. On the North side are manie havens, where men may saile into and save ships, as Sommersound or Hest, Hofwyke, Vrobie, Quaelbie or Rane, all broad sounds or havens: a countrie man or Pilot can bring you in there every where to your desire.

Moggenesholm. From the Northvvest end Suydro to Moggenesholme, the vvestermost and outermost Iland of Fero, the course is northvvest and by north, and northnorthwest about eight or nine leagues.

At the east end of Moggenesholme lieth Moggenes, to the eastvvards of it lieth the Iland Waghe, and to the eastvvards of Wage goeth in a faire Sound from the southvvards
Moghenes wage. off from the iland Sando about Hesten & the iland Colster, for you may run in about these Ilands on both sides, & leave the great Iland Stromo on the east side, and so come into Waghe. In the middest of the Sound of Waghe, goeth up a haven to the eastvvards into the great Iland Stromo, there in you may anckor in 10. or 12. fathom, but the Sound is at least 20. fathom deep.

Moggenes and the northeast end of Fero lie eastnortheast or a little more northerlye, & westsouthwest about fifteene leagues asunder. Betwixt them both lye tenne Ilands, and betwixt each Iland, is a faire broade & deep Sound whereof
Somsound, the fourth off from Moggenes is called Somsound. All these Sounds lye most n.n.w. and s.s.e. through the land, & upon all these Ilands stand Churches, except upon Ostra, which never the lesse is a great Iland.

Schalhead From the southeast end of Suydro to Scalhead, or the southeast end of the Iland Sando the course is north and by
Little Dymen. west about five leagues. Betwixt Suydro and Sando lye the
Stoer Dymen. little Ilands, Little Dymen, Stoer Dymen, Schavo and Dalsfles.

From Schalhead untill within the Iland Mulso (lying before Stromo) the is course n. and by w. 4. leagues, there you
Stromo may every where ancker, where you will in twentie, thirtie or fortie fathom. If any man commiug in out of the sea, desireth to see a good road or haven under the Ilands of Fero, he shall keepe that middlemost great Iland Stromo n. w. and northwest and by west from him, and then hee shall see upon the middest of the Iland Stromo a high steepe hill cal-
Schelling. led Schellinck, which he must sayle right in with, and so he shall meete with that foresayd Iland Mulso, a low Iland, which you may sayle about on both sides, but it is best for to runne in there at the south end, under this Iland is all over good ancker ground. Right over against this Iland, on the great Iland, lyeth Torshaven, the chiefest haven of Fero, Torshaven where all the trade of merchandize is.

From Torshaven or the Iland Mulso to the northeast end of Fero the course is northeast, and northeast and by east about twelve or thirteene leagues, betwixt them both lye seven Ilands, & betwixt each Iland (as hath been sayd) goeth a broad Sound thorow the land, lying through about northwest, northwest and by north, and northnorthwest. The north end of Fero is about foure leagues broad, and lyeth northwest and southeast, and is called Fulo, thwart of it lyeth Fulo, the Bishop.

He that desireth to sayle of from Mulso into Somsound, let him goe on northeast & by north three leagues, unto the poynt of Bordenes, then up northwest off from Bordenes, & The Bi-
then he shall espie a Church upon the Iland Calso, which he shop. must leave on the starboard side, & goe in along westnorthwest untill he come into the Bight of the Iland Ostro, and ancker there in seventeene or eighteene fathom.

These Ilands of Fero lye in a triangle, it is from the s.e. end of Suydro to Fulo, or the n. end of Fero n.n.e. and s.s.w. 21. leagues asunder.

From Scotland westwards and to the northwards of Ireland, lye many Ilands, whereof we shall here describe some, with so much perfectnes, as thereof is yet knowne.

The names of the principall ilands lying there are these: Names of
Areu, Ila, Jona, Mulla, Bragedull, Hun, Lewis, S. Patri- the Ilands
cius, S. Maria, S. Colane, S. Petous, Epth, and S. Kilda, these are the greatest. There are yet some small ilands: as Rona, Chent, Trauta, Fladde, Grand Melul, Petit Melul, Stalpan, Cannay, Rum, Egghe, Mule, Cutte, Carndenbrough, Gronsay, S. Karbo, Lismont, Swynoy, Machare, Gegay, Caray, & Navarsay. All these ilands doe lye and belong under Scotland, and are those which by the Cosmographers are called Insulæ Hebrides.

The Iland Barre or Rona is the northermost iland lying Barre or
behinde Scotland, & lyeth from Fulo about w.s.w. 37. or 38 Rona.
leagues, it lyeth by two other little ilands about a greate league one from the other.

The Ilands of Lewis lye from Rona southwest distant 16. or 17. leagues, and from the north end of Lewis to S. Kilda it is s.w. and by w. 16. leagues.

On the east side of S. Kilda is a good roade for a w. and n. w. winde. This iland lyeth by the other little ilands, whereof the two are not very great, upon that which lyeth to the westwards you may see some houses stand, & these two little ilands lye tenne leagues to the westwards of the great iland of Lewis. Upon the coast of Lewis lye also two rowes of great rocks, like as if they were little ilands, lying one from the other south and north somewhat easterlye about seven or eight leagues.

The southermost lye by 3. little ilands, but the northermost ly by eight small little ilands or rocks.

The iland of Lewis is devided into many parts, the which men may sayle through at many & divers places. Lewis with the iland belonging to it lye s.s. w. and s. and by w. about 29. leagues.

But on the east side goeth a broade Sound through of five or six leagues. Men sayl in close by the iland of Lewis, about s.s. w. vntill past the iland Cheut.

From thence the Sound lyeth through betwixt the great iland Bragadull & Lewis s. & s. & by w. towards the w. end of Lewis, called the Ephts, then you must leave Mulla & Ila, with divers many other ilands on the larboard side.

Jona, Ila, Mulla & Bragadul are foure of the greatest ilads, which are lying on the west coast of Scotland, and lye close by the mayn land, but there are many havens and Sounds, so that there you may sayle in and about them every where.

At the n. w. poynt of Ireland lye also some ilands, which you may sayle through and round about them all.

Betwix Rona & Orkneys lye also some ilands which also you may saile through betwixt and round about.

He that falleth with these ilands must be very carefull & circumspect, for the most part of them are inhabited by wild and savage people.

In Lewis & the ilands there abouts a s. w. & n. e. moone maketh the highest water, & likewise also without the north poynt of Scotland.

Of

Of the tides and course of the streames.

In Hitland within the havens & Sounds a s. s.w. & n. n.e. moon maketh full sea. The floud runneth there to the eastwards and the ebbe to the westwards, especially at the s. end and north end of Hitland, and so fall thwarte through the Sounds and havens.

In the ilands of Fero a north and south moon maketh the highest water.

Under the ilands of Fero goe very harde tides, with great turnings, the floud commeth there out of the w. and w. n. w. & the ebbe out of the e. and e. s.e. and fall so alongst through the ilands, there you must reckon your tides thereafter, when you will sayle from the one iland to the other, there are two wels or Maelstreames, the one at the s. end of Suydro, & the other a league within Scalhead at Quaelnes.

Although the tides doe run so strong through these ilands yet nevertheles it floweth not there foure foot up & downe.

How these lands doe lye one from the other, and from other lands.

From Fairehill to the northeast poynt of Orcaneys southwest 9 or 10. leagues.
From Fairehill to the south end of Hitland southsouthwest, and south and by west 7. or 8. leagues.
From the south end of Hitland to the iland Rona westsouthwest 146. leagues.
From the north end of Hitland to the rocks of Rocol westsouthwest 127. or 128. leagues.
From the south end of Hitland to Fero westnorthwest, and northwest and by west 61. leagues.
From the north end of Hitland to the south end of Fero w. and west and by north 58. leagues.
From Hitland to the east poynt of Isl and the course is n. w. and by west about 130. leagues.
From the north end of Hitland to Gryp northeast and by east 125. leagues.
From Hitland to Stadt east northeast 69. leagues.
From Fero to Rona the course is s. and by e. 45. or 46. lea.
From the s. end of Fero to Rokol s.w. westerlye 85. leagues.
From Rona to Lewis the course is s. w. 16. leag.
From the north end of Lewis to S. Kilda s.w. 16. leag.
From the south end of Lewis to the northwest point of Ireland the course is s.s.w. about 27. leag.
From S. Kilda to the north end of Hitland northeast and by east 39. leagues.

Of the heights of these lands.

The south end of Hitland lyeth in 59. degrees 48. min.
The north end of Hitland lyeth in 60. degr. 45. min.
The South end of Fero lyeth in 61. degr. 15. min.
The north end in 62. degr. 20. min.
The ilands of Rona lyeth in 58. degr. 46. min.
The north end of Lewis lyeth in 58. degr. 18. min.
The Rock Rokol lyeth in 58. degr. 20. min.
The northwest poynt of Scotland lyeth in 58. degr. 30. minutes.

How these lands doe show themselves at Sea.

When Fairehill is west and by south 3. or 4. leagues from you, it sheweth thus,

When Fairehill is west from you, see Hitland northwest from you, it sheweth thus.

When Fairehill is southeast and southeast and by east 3. or 4. leagues from you. it sheweth thus.

When Fairehill is northwest and northwest and by west 4. leagues, it sheweth thus.

Fairehill being 5. leagues southwest and by west from you sheweth thus.

When Fulo is n.w. from you so far, that you may even see it out of the top it sheweth thus,

When the southeast end of Hitland is west northwest from you, then sheweth the land as in these 3. figures the AABB one to the other.

Thus sheweth Hitland, when it lyeth n.w. and by west about 4. leagues from you.

In this forme sheweth Hitland, betwixt Hanglip and Hamburger-Haven.

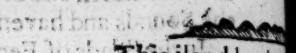
Five leagues to the northwards of Hanglip, the land sheweth thus, being about a league off from it, Hitland lyeth in there with a great bight, with many Ilands.

Thus sheweth Hanglip, when it is northwest from you eight leagues.

When as the northend of Hitland is southeast and by east from you, then it riseth thus.

When S. Kilduyn is s. w. about five leag. from you, it sheweth thus.

When the iland Lewis lyeth east from you then it riseth thus, and then you are without S. Kilda.



This iland lyeth a upon the coast of Lewis.

S. Kilda 6. leagues southwest from you, it sheweth thus.

S. Kilda northeast from you, 4. leagues, it sheweth thus.

S. Kilda southwest and by west 4. leagues from you, it sheweth thus.

Fulo 4. leagues from you, it sheweth thus.

Thus sheweth the Iland Barre or Rona, when it is 4. leagues s. s. e. from you.

This iland lyeth west southwest from Scotland.

The southpoynt of Fero west northwest from you, 5. leagues it sheweth thus.

The southpoynt of Fero northwest 6. leagues from you, it sheweth thus.

This land lyeth on the n. w. poynt of Scotland towards Locherme.

The first Part

THE SECOND BOOK

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

Is set forth the Description of the Seacoasts of Norwey, Finmarck, & Lapland, and therevvith the vvhole vvhite Sea, from Dronten to Nova Zembla.

With Privilege of the high and Mighty Lords, the States Generall, for tvvelve yeares.

Printed at Amsterdam,

By Iacob Columne, on the Water, in the Fierie Columne, Anno M. DC. XL.

14

PASCAERTE Vande Cust t'van Finmarcken, van Dronten tot de Noort Cage, als mede t'nieuwe Caep, En Lant spits bergen tot Amsterdam

By Jacob Aertsz Colom

Met Privilegie der Ed. H. M. Heeren Staten Generael voor twaelf jaren

FINMARCKEN

Les Costes Marines de Norwegue de Dronten jusques a le Noort Cage, comme aussi Spitsbergen

Duytsche mijlen 15 voor een graadt

Spaansche mijlen 17½ voor een graadt

Eng. en Fran: mijlen 20 in een graadt

Dronten

Noord Caep

Noord Caap
I. Ingen
Lanefioerd
Schutinghoogh
Posangernes
Keppisoerd
Noordt Caep
Noordt Cap
Noordt Caep
Noordt Caep
Noordt Caep

Beerenberg

Strande

Strande

Strande

Sandbay

Bocht Van Guine

De 6 Clippen

Blinde

Blinde

IAN MAYEN EYLANDT

Duytsche mylen 15 in een graadt

Spaensche mylen 17½ in een graadt

Eng. en Fr. mylen 20 in een graadt

Les Costes Marines de Norwegue et Finmarcke entre Dronten et le Noort Caep

FINMARCKEN

REF BOTTEN

Kynnaes

Noord Caap

Magero

Altenboeken

Lenvig

Sanien

De Cuſten Van
Noorwegenen Finmar:
ken. tuſſchen Dronten
en de Noort Caap

Door I. A. Colom.

Beeren eylandt

Dronten

Schonhagen

Vardehuys

Vardoe

Vesterne

Vyck

Schrugen

Nemendael

Lappelandt

Salten

Oxtems

Heiligelandt

Stetch

Tragenogh

Ruſt

Maelstroom

Londigx

Lofoot

Westrol

Duytſche mylen 15 in een graadt

Spaenſche mylen 17½ in een graadt

Eng. en Fr. mylen 20 in een graadt

Duytſche mylen 15 in een graadt Lieues d'Allemaigne 15 en un degre

Spaenſche mylen 17½ in een graadt Lieues d'Eſpaigne 17½ en un degre

The ſecond book of the Fierie Columne.

CONCERNING

The Eaſtern and Northern Navigation.

Containing

The deſcription of the ſeacoaſts of Norway, Finmark, Lapland, & the whole VVhite Sea.

The firſt demonſtration,

where in

Are ſet forth the coaſtes of Norway, from Dronten to the North Cape; as alſo Iohn Mayes Iland, and the New-found-land of Spitſ burgh.

nen- Ilands

From the Iland Gryp to the Nomendals Ilands, the courſe is northeaſt eighteene leagues, but from Gryp to the Iland Ruſt, north and north & by eaſt ſixtie foure leagues. Betwixt them ly (beſides the Nomendals ilands) alſo the Ilands Holy land, and Traenoch. Traenoch & Ruſt lye thirteen leagues aſunder. From Ruſt to Were, the courſe is northeaſt and by north nine leagues, but to Loffoert northnortheaſt three & thirtie leagues. Betwixt Were & Loffoert lyeth te Maelſtrame, where you may ſaile through, but at ſtill water. By the weſt point of Loffoert you may runne in, and make roade under it. And alſo you may runne through from thence within betwixt the Ilands & the main land, all along unto the north cape.

Betwixt the Ilands Weſterholl, Sanien & Tromſound, you may alſo runne in at divers places, and make roade. Thwart of theſe Ilands lye here & there in ſome places ſunken rockes and foule grounds, a great league & more without the land. He that ſaileth alongſt this coaſt, may be mindfull there of.

Surroy.

Fogelden Skyrſeu. Loppen. Loppenkalf.

From the Iland Tromſound to Surroy it is eaſt northeaſt 15 or 16 leag. to the eaſtw. of the iland Tromſound goeth in the Tromſound betwixt the iland Fogelden & Skyrſeu, as you ſaile in there you leave the ilands Loppen, & Loppenkalf lying on the larboard ſide without the other ilands, within it are divers ilands, bayes, & ſounds, where you may

Altenbotten.

ſaile in, & ſeeke road, as Oxefioert, Biurfioert, & other more.

Betwixt Loppen & Suroy men do ſaile through ſuyerſound & ſtiernerſound into the river of Altenbotten, & then betwixt them they leave on the ſtarboard ſide Niufſioerd, Oxefioerd & Langhefioerd. On the larboard ſide a-

Haeſwyk

bout by the weſt point of Suroy, on the land of Suroy, lyeth a Haven, where by is alſo a Fiſher village, both called Haeſwyke, Suroy is about ten leagues long, & lyeth on the off-ſide, eaſt northeaſt.

Nine or ten leagues to the eaſtwards of the Iland Tromſound, about three leagues without the land lyeth a ſhowld of rockes a little underwater. Iohn Huygen of Linſchoten in this ſecond voyage to Nova Zembla, in the yeare 1595 ſailed with his ſhippe upon it in faire weather & ſmoot water, that the ſheating of his ſtemme was beaten of to ſhips; but after ſome beating the ſhippe turned of with the ſtrong current. It is to be through that there lye more then men can ſee, or as yet are diſcovered.

Showld

Inghen

About five leagues eaſt and by north from the eaſt end of Suroy, lyeth the iland Ingen, betwixte them both lye alſo Reefholme and Shipholme little ilands, which you may ſayle about on both ſides, untill under Inghen or Suroy.

Reefsholm Shipholm.

When as you come in betwixt Suroy and Inghen, there lyeth thwart off from Suroy towards the other land, a good haven called Hamerfeeſt. A little further in lye two high little ilands, and over againſt them a road called Slechtnes. Betweene Hamerfeeſt and Slechtenes, before that you get Slechtenes, lyeth a bay on the land of Suroy, where is good roade in 25 or 30 fathom cloſe by the ſhoare. A little paſt theſe little ilands on the land of Suroy, over againſt the river of Alten, is a good road called Goeſhop a fayr ſandbay.

Hamerfeeſt.

Slechtenes.

Goeshop. Holmshuy

Between Ingen and the north Cape, or the Iland Maggereu lyeth Helmſhuy, an Iland which you may ſayle round about, having on the norhweſt ſide a bay, called Ackefioerd, where men may make road for ſoutherly & eaſterlye winds, on the ſoutheaſt ſide is a bay called Knaarwyke, where men may make road, and lye ſheltred for weſterly & northerly winds.

Akefioerd

Knaarwyke.

The North cape is the northermoſt poynt of the Iland Maggereu, a little to the weſtwards of it lye the little ilands of Stappen.

Northcap.

Stappen.

On the ſouth ſide of Maggereu even about the eaſt poynt, lyeth Keelwyke a good haven. On the ſame ſoutheaſt ſide, by the ſouthermoſt poynt of Maggereu, leyth a little iland called Altenſoleu, the Sound betwixt that little iland, & the land of Maggereu is called Maggereu-ſound, there is good roade, and ſhelter for almoſt all winds: Men may run in through Suyerſound to the weſtwards of Suroy within Suroy, Ingen, Helmſhuy, & other more ilands to the ſouthwards of them, a long through divers channels to the ſouthwards of Maggereu, and come out againe into ſea betwixt the North Cape and Northkyn.

Maggereuſound:

From the north Cape weſtwards the coaſt lyeth alongſt the Ilands weſt and by ſouth about 37 leagues, & then from thence weſtwards it falleth away more ſoutherly.

Of the tydes & courſe of the ſtreames, about theſe foreſaid places.

On theſe coaſtes a ſouthſouthweſt & northnortheaſt moon maketh full ſea. The floude commeth there out of the northweſt & weſtnorthweſt, & falleth alongſt Finmark towards the North cape.

Between Suroye, & the river of Alten a ſouthweſt & by weſt and northeaſt & by eaſt moone maketh high water.

At the North cape a ſouthſouthweſt & northnortheaſt moon.

To the weſtwards of the North cape the ſtreames come out of the northweſt & weſt northweſt, & fall alongſt Finmarck towards the North cape.

Courſes & Diſtances.

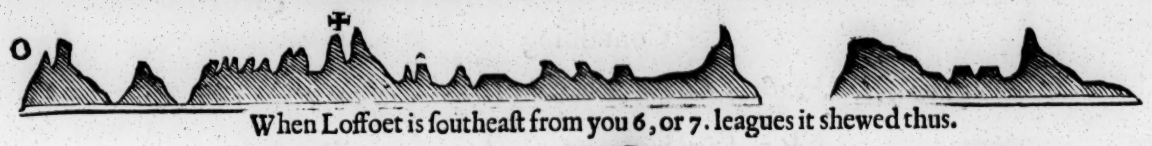
From Ruſt to Loffoert n.n.e.	33 leagues.
From Loffoert to Sanien n.e.	36 leag.
From Sanien to Suyro n. e. & by eaſt	43 leag.
From the Iland Tromſound to the weſt end of Suroy e. n.e.	13 or 14 leag.
From the eaſt end of Suroy to Ingen e. & by n.	7 leag.
From Helmſhuy to the North cape, e. & by n.	5 leag.
Frō the North cape to Northkyn eaſt & by ſouth	12 or 13 l.

Heights.

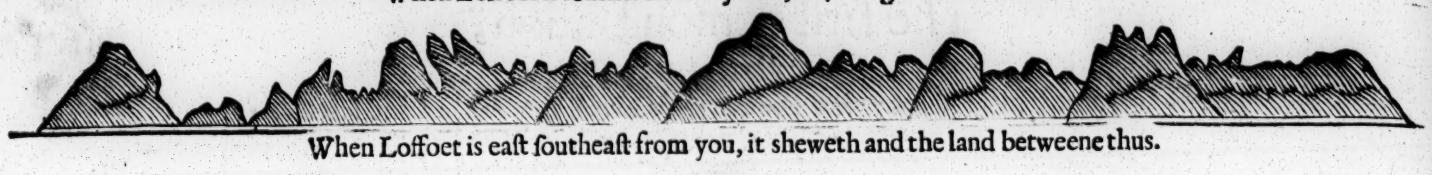
The Maelſtream lyeth in about	68 degrees.
The iland Sanien in	70 degrees.
The North cape lyeth in the hight of	71 degrees 30 minu.

How theſe Lands doe ſhew themſelves at ſea.

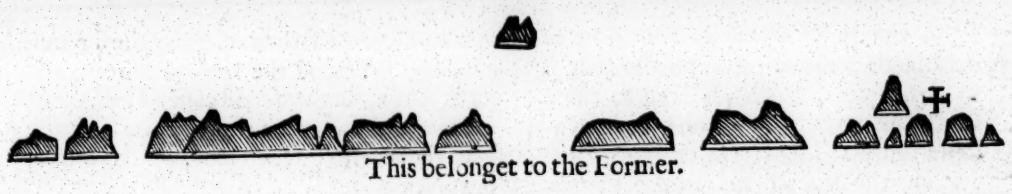
When the eaſt end of Loffoet is ſoutheaſt and by eaſt from you, it shewed thus, with the land to the weſtwards.



When Loffoet is ſoutheaſt from you 6, or 7. leagues it shewed thus.



When Loffoet is eaſt ſoutheaſt from you, it sheweth and the land betweene thus.



This belonget to the Former.

When this poynt with the † is w.ſ.w. from you it shewed thus.

Noortfoelen with the land to the weſtwards ſheweth thus when the poynt † is ſouthweſt and by weſt from you.

The land to weſtwards Foelen ſheweth thus, when it is ſouthweſt and by ſouth from you.

When ſoutherfoulen is ſ. w. and by S from you 3 leagues, shewed thus.

Noortfoelen ſouth and by weſt from you 3 leagues, sheweth thus.

The eaſt end of Weſterholl sheweth thus when as you ſaile alongſt by it, about 7 leagues off from it,

Theſe two figures belong at the croſſes one to the other.

Thus ſheweth the Iland of Sanien, when the 2 high hils upon the eaſt end are ſoutheaſt & by ſouth, & the point, with the clift ſouth & by weſt from you 4 leagues. When as the two foreſayd high Hils upon the eaſt end are ſouth from you, then they are right one in the other.

Thus ſheweth Suroy, as you ſaile alongſt by it 5 leagues off.

Shipholm

Iland without Suroy.

When as Shipholm is ſoutheaſt and the Iland without Suroy is ſouth about 4 leagues from you, then they shew themſelves thus.

Thus ſheweth the Iland Ingen, when it is eaſtſoutheaſt 4 leagues from you.

Road of Ingen

Thus ſheweth Ingen, when this Hill is 1 leagues ſouth & by eaſt from you.

This Hill lying upon the iland Lappen, you may ſee over Suroy as you ſaile alongſt by Suroy from the north end to the ſouth end.

Thus

Thus ſheweth the Iland Lappen when this ſouth and by weſt from you, 4 leagues.

Lappen ſouth and by eaſt from you, 4 leagues ſheweth thus.

Lappen ſheweth thus ſouthweſt and by ſouth from you, 4 leagues.

When as Ingen lyeth ſouth thwart from you about 4 leagues, it ſheweth thus, and then Shipholme lyeth ſouth & by weſt from you.

Long Hill.

Thus ſheweth Ingen when this Long Hill is ſouthweſt & by weſt from you.

When Helmſey is ſouth or ſomewhat more weſterly about 3 leagues from you, it ſheweth thus.

When as Helmſey is ſouth and ſouth & by weſt five leagues from you, is ſheweth thus.

Helmſey being ſouthweſt ſeven leagues from you, ſheweth thus.

ſouthſouthweſt.

Thus ſheweth Helmſey being foure leagues off from it, when the flat hill is ſouthſouthweſt from you.

In thus form ſheweth the Iland Stappen, when it lyeth ſ.ſ.w. 4 or 5 leagues from you.

Thus ſheweth Stappen when it is 5 or 6 leagues ſ.w. from you.

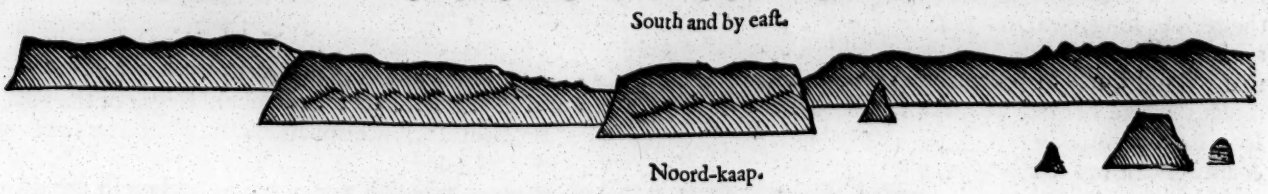
The eaſt end of Stappen ſheweth thus when you ſaile alongſt by it.

North Cape ſouth and by eaſt.

The Mother with the Daughters ſoutheaſt and by ſouth.

Thus ſheweth the North Cape ſayling alongſt by it, the poynt being from you as aboue is ſhewed.

South and by eaſt.



Noord-kaap.

The Noordcaap ſouth and by eaſt from you ſhewed thus.

Ruſt eaſt and by ſouth from you ſhewed thus

When the mother with the daughters eaſt ſoutheaſt from you, is, the land ſheweth thus.

When the North Cape is ſoutheaſt, and the Mother with the Daughters ſouthſoutheaſt from you, then they ſhew themſelves thus.

Thus ſheweth the North Cape ſailing alongſt by it about three leagues from land, when you are cloſe by the land, you may ſee the Mother alongſt aboue the land.

Northkyn. Mother with the Daughters.

Thus sheweth the North Cape when as the Mother with the Daughters are ſouthſouthweſt foure leagues from you, then the North Kyn lyeth ſouthſoutheaſt from you, as is here above demonſtrated.

Southweſt and by ſouth. Southweſt. ſ.w.and by weſt.

Thus sheweth the North cape the point being from you,as ſtandeth there abouts written,and then you may ſee the Mother from the hatches appeare even above water.

Thus sheweth the North Cape when it is weſt and by north from you,and that you are 3 or 4 leagues without Northkyn.

ſouthſoutheaſt.

Thus sheweth Northkyn being ſ.ſ.e. eight or nine leagues from you, then lyeth the north cape 9 or 10 leagues ſ.w. from you, and then between both you may ſee yet more land in the ſouthſouthweſt.

The Second Demonſtration,

In Which

Are ſhewed the ſeacoaſtes betweene the North Cape and Swetenoes.

Northkijn. EAſt and by ſouth aboute thirteene leagues from the north-cape lyeth north-Kyne. From North Kyne to Tannebay it is eaſtſoutheaſt tenne leagues, between both it is all a cleane coaſte, without Rockes or foule grounds, a high ſteepe craggie land, without anie ſtrand.

When as you come ſailing alongſt paſt North-Kyne, towards Tannebaye, you shall meete firſt with the poynte of Slechtnes, a plaine poynt lying out, verie good to be known: and then Omega a Fisher village, ſtanding on the ſea ſide, even there to the eaſtwards of it goeth in the Tannebay which is a great deepe River, which lyeth in firſt ſouth, and afterwardes ſouthweſt, farre within the land, and doth devide it ſelf into two parts, at the mouth of the River, it is at leaſt two leagues or more broad, and all Tanebay. over verie deepe, He that is bound into the Tanebay, muſt run in alongſt by the weſt shoar, becauſe he muſt lye by weſt shoare, on the eaſt ſide is no roade or place, where men may ancker.

On the foreſaide weſt ſide are manie poyntes and bayes to ſeeto, as if there where roades, but you muſt ſaile paſt them all ſo long, until that you ſee on the ſame weſt shoare a rounde hil, whereupon ſtandeth a Warder, a little paſt that, ſtand ſome Fishermens houſes, upon a lowe hommock, thwerte of theſe houſes runneth off from the land a lowe flatte poynte, you muſt runne in behinde that poynte, & ancker before thoſe houſes, which an ancker to ſeaward and a hawſer faſt on the land.

Markorf. A little to the eaſtwards of Tanebay lyeth the poynte, & the lands of Matkorf, from thence to Wardhouſe the coaſte lyeth ſoutheaſt and by eaſt, ſoutheaſt, and moſt ſoutheaſt and by ſouth ſixteene leagues, betwixt them there is much high plaine land. Halfe wayes betwixte both, but neareſt VVard- houſe. Ward houſe, lyeth a high hommock upon the high land, to ſee to like a caſtle, or Countrie houſe, verie good to be knowne, being thwart of it cloſe by land, it ſemeth as if there where a great Sounde, where men might ſaile into Wardhouſe are three little Ilands with ſome litle rocks alſo by them, the ſouthermoſt is the greateſt of the three, which one ly is inhabited, upon it is a village of about 300 Norwaie houſes with a caſtle, it is about a half league long, and lyeth an English myle of from the land, lying as the coaſt moſt ſouth and north, betwixte both it is all over deep water. On the ſouth ſide of this Iland, lyeth in a haven or great baye aboure half waies the Iland, and likewiſe one alſo on the north ſide, ſo that theſe two bayes doe come ſo neare one to the other, that there remaineth no more then a narrow chindle ſtrand about a ſtone caſt broade, dividing ſo the Iland almoſt into 2, the eaſtermoſt part is the shorteſt, & higheſt, the weſtermoſt the longeſt. Cloſe upon the ſtrand, on the eaſt ſide of the ſouther havē lyeth the Caſtle, to the northwards of it, upon the foreſaide chindle ſtrand, and about the Baye ſtand the houſes. In the ſouther Bay it is good lying, but the beſt roade is betwixt the maine land Roade Kilduyn. and the Iland, about halfe waies on the ſide of the Iland againſt a Sandbay, and right againſt the Caſtle, there is good ancker ground, in tenne or twelve fathome landlockt for all winds, except for north and ſouth winds, which blow there right trough, yet men hare ſome shelter of ſome point of the Iland. Men may without feare come in there, betwixt the Iland and the Maine, eyther from the ſouthwards or the northwards, it is al over cleanie & cleare, but he that commeth in from the northwardes, muſt runne ſomewhat nearer the Rock, where the gallowes ſtandeth upon, then the Iland, becauſe thereaboutes the Iland is a litle foule.

About a ſhotte of a Caſt peece northwardes from the greateſt, lye the two ſmalleſt cloſe one to another, ſeeming a farre off to be one Iland, are together not an Engliſh mile long, but high and rockie to ſee to, there lye alſo two or three rocks by them.

On this coaſte like as at the North-Cape a northeaſt & ſouth-weſt moone maketh high water,

From Wardhouſe to the poynte of Kegor or the Fiſhers Iland, the courſe is ſoutheaſt and ſoutheaſt and by ſouth ten leagues.

Betwixt them both is a great baye, wherein are divers Sounds and rivers, amongſt other the River Pitſing, which is a great faire and large river, where men may goe in with greate ſhippes, a good waies within the river is good rode, there is taken and laden muſt Sammon, but there fal no other ſpecial wares. Southſouthweſt from the poynte of Kegor lye two Ilands, to the ſoutwardes of them men doe runne into Monnick forde.

Kegor is a faire haven, lying at the north ende of the Fi- Kegor or Fishers Iland. ſhers iland, a little without the poynte; Thero lye two or three Rocks at the north poynte of the haven, and alſo a ſunken rock in the middeſt of the havens mouth: you muſt leave the ſunken rock, with the other rocks on the ſtarboard ſide of you, and runne in by the ſouth ſhoare & edge then behinde the foreſaid rocks, and ancker there in ſeven or eight fathome, the havens mouth lyeth in ſouthweſt, it is there ſo good lying as in anie havens there abouts on the coaſt.

The Danes cal this haven Eaſter haven, there was wont Eaſter haven. to be the Staple of the Fiſh, where everie one muſt come to buye

De Custen van Noorwegen En Laylandt, Tusschen Noordkijn en Kildiijn.

Iacob Aertsz. Colom.

De Rivier van Kola

Een Duytsche mijl
ua Lieu d'Allemaigne

Duytsche mijlen 15 in een graadt — Lieues d'Allemaigne 15 en un d
Spaensche mijlen 17½ in een graadt — Lieues d'Espaigne 17½ en un deg
Engel en Fran. mijlen 20 in een graadt — Lieues Angl. et Franc. 20 en un

Kola
Huys
Robben Clip
Zout Keete
Clinckbergh
Duytschebergh
Witte steen
Kaen
Eylant
Drie Coningen
Dese Clip leyt met hoogh water boven

LAPLANDT

Het Eylandt Kildiijn met de Reede ende bevaert ontworpen leggende op de hoochte van 69 graaden 40 minuten
ua Lieu d'Allemaigne
Een Duytsche mijl

Pet Zingamon
Petsinga Nas
Stoven
Waranger
Aynoe
Wsekagueba
Liefs
Doggers Eylandt
3. Coningen
Oerlsen
Kegor oft Ooster haven
Kouraits
Laus
Siegena
Overhaal
Bliesna
Silensa
't Kildyn

De Eylanden van Swetenoes
Kildyn
Swartenhoeck
Stortinges
Noockestroy
Vogel Eylandt
De Skipper
De Seven Eylanden
Swetenoes

Duytsche mijlen 15 in een graadt — Lieues d'All
Spaensche mijlen 17½ in een graadt — Lieues d'Esp
Engelsche en Fran. mijlen 20 in een graadt — Lieues Angl

Noorwegen

Het Eijlandt Wardhuus

Diefholm

Kynnaes Noordkyn

Camoe

Veen

Slettenes

Vardhuys

Kybarnes

Kybar

Vlaming

Neudamare

Warynger

Postsfiort

Kongsfiort

Ilzkoort

Waerde

Kiaurangerfiort

Salfersfiort

Vardhuys

Kybar

Vlaming

Danelf

Lapbay

Swaningang

De Custen van Laylandt Tusschen Kilduÿn en Swetenoes

Iacob Aertsz Colom

Les Costes Marines entre Noordkyn et Swetenoes.

a Amstel. par Iaques Colom.

Tierebierg

Eyl. Kildtuyn

Saleme Duelna

Gabrysk

Warzina

Ruste

Tierebierg

buye: thereof the iland is yet called, whereon Kekor lyeth, the Fishers Iland.

It is indeede no iland, but very neare; it is fast to the mayne land, with such a very small neck, that the Russes, which come from Kilduyn, or the River of Kool, and are bounde to the River Pitsing, doe goe alongst within this land, and hale their boates over that small neck, for not to goe about a seaboard.

Laus. From Kegor to Laus the course is alongst the shoare southeast and by south somewhat easterlye nyne or tenne leagues. This is a right playne coaste, without poynts or bayes, all alongst by Laus to Tiepena, but the south poynte of Laus lyeth out a little; upon which stand two Warders, to the northwards of that poynte is the haven of Laus, a fayre sand-baye, there is very good lying for southerlye or easterlye winds, but not for northerly winds. the winds betweene the northermost and northeast doe blowe therein open, and make therein a very great hollowe sea, men lye there in twelve, tenne and eight fathome, according as they runne farre in, the farther the showlder, but all cleane rising sandground.

Tiepena. From Laus a little towardes Kegor lyeth a little Iland, behinde which is good anckoring for easterlye windes, in cleane sandground, but it is somewhat narrow.

From Laus to Tiepena, it is a great halfe league, at the poynte lye some little rockes, but you cannot see them, before you be close to them. Tiepena is a fayre haven, when you come from the northwards, you must runne so farre to the southwards, alongst by the shoare, untill that you see open into it, and sayle in amidst the Channell. When as you come from the southwards, the haven openeth it selfe, being come in, you must edge up to the northwards, and anckor there, there you lye landlockt for all winds, there are no dangers which may hurt you, but it is over all cleare and cleane sandy ground.

Kowens A little aboute the poynte, to the southwards of Tiepena, which is on the southwest side, of the fishers Iland is another faire haven, where men may goe to anckor, called Kowens.

From Laus to the River of Kola the course is south and by east and southsoutheast about tenne leagues. But Kilduyn and Laus lye southeast and by south, somewhat easterly and northwest and by north somewhat westerly also tenne leagues asonder.

The river of Kool. For to sayle up into the River of Kool or Kola, you must goe from Laus, or the southend of the Fishers Iland towards the River southsoutheast and south and by east, run about by the high land of Podenwolck, and then the River shall open it selfe very wide. When you are by the point of Laus, you may see the Iland Kilduin, and the River of Koole, or the land by it. Betwixt Laus and the River of Koole, is also a great baye.

Read in the River. When as you are in the mouth of the River, it lyeth in first south and by west, and then southsouthwest, to that Iland, which standeth marked with A in the Carde of this, River, and then by little and little southwest and by south, alongst by the Iland marked with B unto the Trayne iland then southwest and by west, and by little and little about the poynt w. and by south, afterwards in west, unto Divels poynt, over against it lyeth the White stone, which lyeth upon the land, thwarte of it is good roade. From thence againe west and by south, westsouthwest, southwest and southsouthwest unto Kool.

When as you come into the River, and will seeke roade there, you must keepe alongst by the west shoare, being somewhat within, you shall see a little Iland lying close by the shoare: from thence somewhat further about the high poynte is a Bight or Baye, and in that Bight a Sand-baye, where men may save a shippe without anckor or cable, that is a faire Sand-baye, where men may runne in all alongst.

Alongst by the north side it is five fathome deepe, and cleane sand ground, men runne in there betwixt the two poyntes; but there lyeth a black Rock in the narrow, betwixt both sheares, which they must leave lying on the starboarde side, within that rock it is three and two fathom deepe unto the strand, within there is faire greene field.

A little without the Baye lye two ilands, whereof the outermost or eastermost is the smallest. When as in sayling up alongst the River you may come by these two foresaid little ilands, about halfe wayes to the iland marked with A, there is also good roade, at the west shoare, you shall see upon the high land three Warders, called the three Kings, thwarte of them is the roade. Roade tree kings.

When you are somewhat past the iland A you cannot see the River any more open, but it seemeth to bee shut, and close, for that iland by A commeth then under the high land, on the east side.

Under the iland marked with B is also good roade and cleane sand ground. Roade.

Likewise is also good roade under the Trayne iland, that is reckoned for the halfe of the River, to wete off from the mouth of Kool.

When as you come now a little past the Trayne iland, where the C standeth, then you shall see out a head a black blewe hill, called the Divels hill, it seemeth there to see to, as if the River were close and shut. It is best sayling alongst by the starboard side, there you have most all ground close by the land. There are many Bights, poynts, and Bayes, which are not all to be described. Divelshill.

On the other side men doe not come so commonly, (except it be against their wils) there seeme also to bee many bayes and roades, and also some little Rivers. When as you you come alongst by the Divels hill, where the D standeth, past the White stone, then you may see the Klinckhil on the west side, and almost all alongst unto Kool. When as you may see the Klinckhill, there is ground by the west shoare for to anckor in, then there are on both sides no daungers; but when as you come so far into the place, where the letter E standeth marked, there you must somewhat shunne the west shoare, because of a little showld which shooteth off from the shoare, and keepe in the middle of the channel, untill that you come against the Klinckhill, there you must againe goe close alongst by it, in the middest of the fareway lyeth an iland of Rocks, which at high water is covered, whereof you must take good heed. Chinchil. Rocks.

From the Klinckhill unto the Robben Iland sayle all alongst by the west shoare, the Robben iland is also covered at high water, but whē it is under water, then anckor thwart of the burnt trees. Thwart of the Robben Iland lyeth a very great rock, as soone as you be thwart of the high land, looke out carefully for it, and keepe without it, or to the northwards of it, to wete a bow shot, there is the roade, there you may anckor by the shoare so showld as you please, it is there good lying, and there you begin to see Kool alongst by the house. Betwixt the iland Kilduyn and the River of Kola, somewhat neare the River than the Iland, lyeth a haven called Bliesna Silensi, that is to say, the nexte to Silensi, there you saylē in by a round reddish Hommock, being come within it, you must edge up to the westwards, so that the haven is altogether shut, and that you can see no sea, you may anckor there so deepe or showld as you will, it is there every where cleare and cleane white sand ground, and somewhat oazye and softe, there you may also without feare sayle on against the shoare in the oaze, and so may save a shippe without anckor or cables. Robben Iland. Bliesna Silensi.

The Iland Kilduyn is about two leagues long and one league broade, and lyeth west northwest and eastsoutheast alongst the land, like as also the chānell betwixt the iland & the maine land, which is at some places about a halfe league broade, and at some places narrower, but all over very deepe and cleane. About the middest, yet neareſt the east ende, is a faire close roade, betwixt two poynts, that lye out towards the maine land, there men lye under the Iland, close to the shoare, before the Laps tents, under the eastermost poynt, which is a low playne poynt, in twelve, thirteene, or fourteene fathome, sand-ground, more to the southwards, it is very deepe, you shall soone have fifty and sixty fathome. Kilduyn.

If you will goe to anckor under Kilduyn comming from the northwards or the westwards, then runne about by the west end, in betwixt Kilduyne and the maine land. When you are come somewhat within, you shall espy a little round iland, there the Channell beginneth to be narrow, yet it is broade enough for to turne to windwards through, For to go into Kilduyn from the westwards.

through, sayle forth towards the southeast end, until you come in betwixt those two poynts, and run to the foresayd low poynt, and anckor there within the bight, before the cabbens so neare to the land as you please, there you lye landlockt for all winds, as if yon lay within a towne in a close haven.

For to sail into Kilduyn from the eastwards.

For to saile in from the eastwards, you must saile in to the westwards by the east end, so long untill that you come by the foresayd low poynte of the iland, then edge up about it to the northwards, and runne into the foresayd bight, before the Cabbens, and anckor there in twelve, thirteene and fourteene fathome, that is the chiefest roade.

At the north and east end of Kilduyn, betwixt the iland and the maine land, there is also a very good roade, in eight, tenne or twelve fathome, where men may lye sheltered for all winds. Thereabouts is on the iland a good water place, there the water commeth running off from the high land, there men may goe lye by it, and fill their caske lying in the boate.

You may also anckor under the maine land, betwixt the narrow, and the Roade of Kilduyn, at the place where the anckor standeth marked, in the Carde. At the east end of Kilduyn lyeth also a Fishers village, called Kammen, at a high poynt, which is called the Sacrifice poynt.

From the iland Kilduyn to the poynt Tiribiry, the course is Southeast, and Southeast and by East about five leagues, betwixt them is a great bay. In this bay, a great leag. from Kilduyn lyeth a high Iland called Bliesna Olinie, which is the next or the nearest Olinie, behinde it, under the mayne land, neareste the south end of the iland is a good roade, where three or foure ships may lye very well.

Bliesna Olinie.

There lyeth a round hill, or high Hommock upon the maine land, which sheweth out above all the other hommockes, and is very good to be knowne, upon which standeth a high crosse of two crosses one above the other, to the northwards of it lyeth a flat poynt, thwart of it lye some rocks alongst the shore, which at high water are covered.

At the south end of the iland Olinie, a little from land, lyeth a rock almost even with the water, but you may alwayes see it well by the breaking of the water.

To the Northwards of the iland about an English myle, lyeth a rock not farre from land, and also to seawards from it a suncken rocke, which you cannot goe over at low water.

Hee that will (comming from the northwards) goe to anckor behinde Olinie, must runne a good wayes to the eastwards of this foresayd rocke alongst to the northwards of the Iland, for to avoyd the foresayd rocke. Being come behinde the Iland, you shall espy the foresayd round hommock with the crosse, you must not runne past the crosse, but leave it on the larboard side, and sayle in close by it for to avoyd the foresayd rockes which lye off from the flat notthpoynt, the poynt with the crosse is very cleane and so steepe, that you might lye with a ship on againstthe shore without any hurt.

He that will come into this Roade from the southwards, let him run alongst by the coaste, which is very cleane, untill past the foresayd poynt with the crosse, and edge up close about by it, as is before sayd.

Men doe ancker within the poynt in seven, sixe, five, foure, and three fathome, so deepe or showld as they will, there can goe no grown sea at all.

About halfe wayes betwixt the Iland Olinie and Tiribiry is another haven or great Bay, where men may lye landlockt for all winds.

Tiribiry.

Tiribiry is a great River and off-water, where is a great Sammon fishing, there men may goe in with great shippes, and anckor every where within it where they will in good sandy-ground, it lyeth in most south, and afterwards more westerly, the eastermost poynt lyeth out more to seawards than the other, so that it maketh a bay, where men ride under for a northwest winde.

Waronia

Two leagues to the southwards of Tiribury lyeth Waronia, which is a great sand-bay or haven, which at the mouth is narrow, but within it is abroad Sound, there is also an off-water, where is also much Sammon caught.

Within this bay it is every where good anckering, showld water and cleane ground.

Before the mouth of this haven lye three little Ilands, behinde them is also good road.

Two leagues or two leagues & a halfe to the southwards of Waronia lyeth a Gabriele, a tyde haven, which falleth dry within, so that men may goe over there dry at low water, it floweth there twelve foot up and downe, a southsouthwest moone maketh high water on this coast. Gabriele

In the mouth of this haven lye three ilands, two on the north side (which are the lowest) and one on the south side, that is the highest, you must runne neereste the southermost when as you will sayle in there: being come within the ilands, you must edge up to the northwards behinde the two northermost ilands, and anckor there on the north side of the haven, there is it seven and eight fathom deepe cleane ground.

Daelna Silensi

About a league to the southwards of it lyeth Salensi Daelna, that is to say, the farther Salensi; but betwixt them both a little to the northwards of Salensi, lyeth yet a great indraught, which lyeth in at least two leagues into the land, and is about so wide as the River Tye before Amsterdam, there may lye a greate multitude of shippes, it is there broade and large enough, and all over good anckor-ground.

A little to the northwards of this in-draught lyeth a little the iland, or rock, somewhat high, about which you may sayle within, to weet, through betwixt these rocks and the land, but may make no roade under them.

Salensi Daelna is a great broad bay, before it lye three ilands, which are to see to gray of colour, as the mayne land. Daelna Silensi

To the northwards of these Ilands upon the poynt of the bay, standeth three great Warders, and a little to the southwards of the Ilands, on the mayne land, lyeth a steepe hill, by which markes this bay is very good to be knowne.

If you will sayle into this bay, comming from the northwards alongst the shore by the foresayd great in-draught, a little to the northwards of this baye, you must looke out for these foresayd great Warders, leave them, on the starboard side, and sayle in close by them, through betwixt that poynt and the ilands, first westsouthwest somewhat within, and then more southerly, untill behinde the ilands, and anckor there in five, six, or seven fathome: you may also sayle further to the southwards into the baye, so deepe as you will, there it is all over cleane. When you come before the channel, it seemeth to bee very narrow, but it is broad enough.

To the southwards of these Ilands is also a channell which is very narrow, but yet for need you may sayle out there. The southermost iland, that is, whereupon the Fishermen dwel, is fast to the northermost with a showld, whereupon is at high water ten or eleven foot water, but at low water you cannot goe over it.

Two little leagues to the southwards of Salensi lyeth the iland Daelna Olinie, that is to say, the furtheste Olinie, it is an iland almost of fashion like Bliesna Olinie, at the north end high, at the south end lower, and upon the end very steepe, it hath in the middest, (but somewhat neerer the south end then the north end) a low valley, where at high water the sea doth almost run alongst over it. Daelna Olinie

Behinde this iland, not under the iland, but under the mayne land, are good roades.

For to come in from the northwards behinde this iland, it is a broade, large, and very deepe channell, without any dangers, but if you will sayle in behinde it (from the southwards) then you must runne in close by the iland, for to avoyde a foule and stony riffe which lyeth off from the mayne land, halfe wayes to the iland, and so showld that it falleth dry with the spring tydes at low water.

About halfe wayes the iland, neareste the south end, is a poynt, lying out from the mayne land, towards the iland, to the northwards of it men doe anckor in six, seven, or eight fathom.

fathom.

When you come in from the northwards, you may (so soone as you come within the points) lufe up towards close about the poynt of the mayn land into a bay, & anckor there in eight, six, five, or foure fathom, according as you sayle far in, there it is very good lying. In these roades under the mayne land it is all cleane & flat rising ground, but under the iland it is deepe, and the ground rising very steepe, and therefore it is not good anckoring there.

Betwixt this iland Daelna Olinie, and Silensi, lye 3. little black ilands, where is very good road under them in 8. 7 and 6. fathom.

From Daelna Olinie to Rinde are five leagues. Rinde is a very fayre Haven, before it lye foure little ilands, where men may goe to anckor behinde them, behinde these ilands this Haven hath two bayes, upon the poynt betwixt them both standeth a great Crosse, the southermost baye is farre the greatest, into it commeth also a river or off water, where men doe catch Sammon. The middlemost iland (which is the northermost save one) is the greatest and highest upon which standeth a great Warder, the northermost is somewhat long and smal, and so low, that at high water the sea runneth up a good wayes upon it on both sides, & so maketh that iland smaller.

Betwixt that iland and the maine land, or the north shore of the Havens mouth lyeth a suncken rock, which you must leave, in comming in, on the larboard side, and runne in close by the main land, this channell is so narrow, that you cannot sayle it in, except you have a large winde, at low water there remaineth no more then nine or ten foot deepe.

To the southwards of that great Iland, lyeth another Iland that is indifferent high, and the southermost of them all, betwixt that and the poynt of the maine land, lyeth in the souther channell, which is broad and deep enough, but when you sayle in there, you must run neareſt the Iland, for to avoid a suncken rock which lyeth at the foresaid poynt of the maine land.

These channels both from the southwards and from the northwards lye in both alongst the shoares, when as that you come then within the Ilands you may anckor there all over where you will, there it is broad and large, and every where cleane and cleare. Men doe anckor commonly under the greatest Iland thwart of the great Warder, and also behinde the northermost Iland in five, foure, or three fathom, there it is very good lying, but with a southeast winde, the sea commeth a little rowling in, but there can goe no great sea.

Farre within the southermost bay, almost before the river, lyeth a rock, but above water. Without the greatest and the southermost Iland, lyeth a little Iland, or great rock, somewhat round, you may sayle out and in betwixt the southermost and the greatest Iland, alongst to the northwards of that little round Iland, that is you leave the southermost Iland with the outhermost little round Iland both on the starboard side, and the greatest Iland with the Warder on the larboard side, when you sayle out, this is a very narrow channell, but very cleane and cleere, so that there is nothing to bee avoyded, but onely a little suncken rock which lyeth at the north end of the outermost litle round Iland, and falleth dry at low water, nevertheleſſe it is not good to use it, except it were for need that you could not doe better.

He that is bound into this haven, must run close alongst by the shoare for to get sight of the foresayd Ilands, for by reason that the inner land is high, the Ilands lye so under the land, that men can hardly see them, when they bee any thing off from the shore.

A halfe league to the southwards of Rinde is another great Bay, or haven, before it lye two little high Ilands upon the northermost standeth a great crosse, you may sayle in there about on both sides of these little Ilands, and also through betwixt them, and anckor where you will in fifteene, twelve, eight, or five fathom, deepe or shound, according as you sayle farre in, and lye there sheltred for all windes, but when the winde is hard out of the sea, thwart upon the shoare, there will come in somewhat a towling sea, but there can goe no great sea that can hurt you. A little to the northward of this haven lyeth a low long Iland close to the shoare, whereby you may also know this coast, you may sayle through betwixt this foreland Iland and the maine land without any danger.

From this haven to the Seven Ilands are foure great leagues. A little to the northwards of the end of the Seven Ilands, lyeth a fayre great sand-bay, where is also good anckering for southerly and southeast windes, but not for easterly winds, with a northeast or sea wind it is bad lying there for there is no shelter for them, men doe anckor there in twenty, fifteene, or twelve fathom, according as they lye far or neare to the shore. The Russes call this Bay the Golden bay, Golden Bay. because the strand is of red sand.

On all these foresayd coasts a southweſt and northeast moone maketh high water, like as on the former.

The Seven Ilands lye of them alongst the shoare, the first or northermost is farre the greatest of all, a high Iland. The foure northermost follow close one to the other, and lye about an English mile, or a shot of cast peece, a little more or lesse of the land, so that men may sayle there through betwixt. The fifth is a little round Iland, and lyeth neare to the land, there you cannot runne through within it, which is fast to the land with a showld of rocks, whereof some lye above, and some under water. The two southermost lye a good wayes to the southwards of the fifth: betwixt them and the mayne land you may also sayle through, you may also runne through in and out betwixt these same Ilands every where, except betwixt the second and third to ten off from the northwards, betwixt them both it is fowle. Seven Ilands.

Betwixt these Seven Ilands and the mayne land, goeth a strong tyde, as well of flood, as of ebbe, whereof men must be very carefull. The first Iland.

Betwixt the northermost and the mayne land is a good road (thwart of the south end of the Iland) under the mayne land, there is a faire sand-bay, with an off-water, where is much Sammon to be caught, but it is not there used.

A little to the northwards of this Sand-bay lyeth a little iland betwixt the great iland and the coast, men doe anckor to the southwards of that little iland, thwart of the Sand-bay in seven, six, five, or foure fathom, so shoald as they will, there is a very even sand-ground, rising so even as if it were plained.

Over against the foresayd bay men may make roade under the south poynt of the Iland, thwart of a little bay, there they bring a hawser on land, and an anckor to seawards in nineteene fathom, there they lye somewhat more out of the tyde then in the bay over against it.

Betwixt this great iland and the coast is about two third parts of the channell towards the maine land, flat rising ground, and the other third part towards the iland Deep: the neerer the Iland the deeper unto eighteen and nineteen fathom.

About halfe waves betwixt that foresaid little round Iland, and the north poynt of the greatest Iland, stand on the mayne land some little Lappish houses, or a little village.

Betwixt the second and third Iland, or neareſt thwart of the second, to tell from the northwards, lyeth yet a little village, thwart of it is a bay where men may anckor in tenne or twelve fathom all cleane sand-ground, but with a southeast wind there commeth in a rowling sea, but with northerly winds it is very good lying there. Second & third Iland.

Thwart of the fourth Iland on the maine land, is also a sand-bay, where is also good road in seven or eight fathom for a northweſt or north wind, but with an east winde it is there bad lying, that bloweth there in open through betwixt the fourth and fift Iland. The 4. Iland.

Even at the end of the seven ilands is a great In-draught, or bay, which the Russes call the Schipper, which is narrow at the comming in, but within indifferent large & wide; within it is good road in twelve, eight & foure fathom clean rising ground, but with a northeast wind it is bad lying there, that bloweth there flat in. The Schipper.

About nine leagues to the southwards of the Seven Ilands, lyeth a poynt called Siornenos, that is to say, Black poynt, it is so called, because it is very black to see to, there

within

within it the land is high, and goeth downwards low towards this poynt, almoſt as Swetenoes.

At this poynt the land beginneth to alter in forme, to the northwards of it the coaſt is altogether high, but to the ſouthwards of it all low and even land, ſo that thereby you may know (when you ſayle alongſt this coaſt) whether you be to the N.ward or to the ſouthwards of this black poynt.

Noock Oſtrove. A little to the northward of this poynt lyeth a high and great iland a halfe league long, which the Ruſſes call Noock Oſtrove, which is the Nayle iland, behinde it is very good roade, you muſt run in there from the ſouthwards; from the N.wards you cannot come in there behind it.

The north end is faſt to the maine land with a bancke or ſtrake of ſand, which lyeth moſt part above water, you may ſayle in there ſo farre behinde it, as you will, and anckor in ten, eight, ſix, or foure fathom, the further that you ſayle in the ſhowlder it is, there it is very good lying, and ſheltered for all winds.

Evanekriſt From the Siornenos, or the black poynt to Evanekriſt it is ſouthſoutheaſt foure or five leagues, that is a poynt with many croſſes, under it you may make good roade for ſoutherly winds.

Kletna. From Evanekriſt to Kletna are yet three or foure leagues this is a poynte whereupon ſtand alſo many croſſes, it lyeth out a little, but not ſo much as Evanekriſt, there you may have alſo road for ſoutherly winds, but not for ſeawindes.

Lands of Iockena. From this poynt to the ilands of Swetenoes or Iockena, it is two leagues, there are ſix in number, whereof the five lye alongſt the ſhoare about the ſpace of two leagues, the ſixth lyeth within the other, thwart of the ſouthermoſt of the five: The three northermoſt lye one by the other, as alſo the two ſouthermoſt parted aſunder from the other three the northermoſt of all theſe ilands of Jockena lyeth from the poynt of Swetenoes due weſt three leagues, behinde it is good roade thwart of the ſouth end in five or ſix fathom. The poynt of Swetenoes is a flat poynt lying out, to the weſtwards of it, at the end of thoſe foreſayd ilands, goeth in the river of Jockena, where is a great Sammon-fiſhing.

Swetenos. When you are by Swetenoes you can ſee little perfectneſſe of theſe ilands, becauſe the maine land is much higher than the ilands.

For to ſail into the river of Iockena. He that commeth from the Northwards, and is bound in to Jockena, muſt runne cloſe alongſt by the ſhoare, for to get ſight of theſe ilands. Through foure ſeverall wayes you may ſayle through theſe ilands into the river of Jockena: Firſt comming from the northwards, you may ſayle alongſt by the ſhoare, through betwixt the ſhoare and the Ilands, (which you leave the all on the larboard ſide) into the river.

The ſecond paſſage lyeth in through betwixt the three northermoſt, and the two ſouthermoſt ilands, that is broad, wide and deepe, and alſo the beſt channell of all, it lyeth ſouthweſt, and ſouthweſt and by weſt from the poynt of Swetenoes, and lyeth in moſt ſouth, when you ſaile in there, you muſt runne neareſt the ſouthermoſt Ilands, becauſe of a ſuncken rock which lyeth in this channell ſomewhat off from the third iland, at high water you may run over it, but not at low water.

Being come within theſe ilands, you ſhall ſee the ſixth iland which lyeth within the two ſouthermoſt, you muſt run about by it, leaving it on the larboard ſide; When as you are then a little paſt that innermoſt iland, you come againſt the high poynt, and ſayle in alongſt amid the channel, betwixt both lands, there it is ſhowld water, to wit, five, foure, three, to two fathom and a halfe, but you may ſayle in amid the channell without feare, all alongſt unto the Lappiſh houſes, where the Sammon-fiſhing is, and anckor there alſo in the middeſt of the river, thereabouts lye ſome ſuncken rocks, which at low water are uncovered, whereof you muſt take heed.

For to have the right knowledge of this channell, you muſt looke out for the high poynt, which lyeth at the weſt poynt of the river, within the Ilands, when that is behinde the fourth iland (to reckon off from the northwards) and the poynt of Swetenoes is northeaſt, and northeaſt and by eaſt from you, then you are right open before the foreſayd channell.

Betwixt the two ſouthermoſt ilands goeth alſo an indifferent wide channell through, where men kan ſayle in, and ſo come on againſt the innermoſt iland, which you may ſayle about on both ſides.

Betwixt the ilands and the mayne land, you may alſo ſayle through, but that is a very narrow channell, men ſayle through it, as if they ſayled in alongſt a ditch betwixt two Dykes.

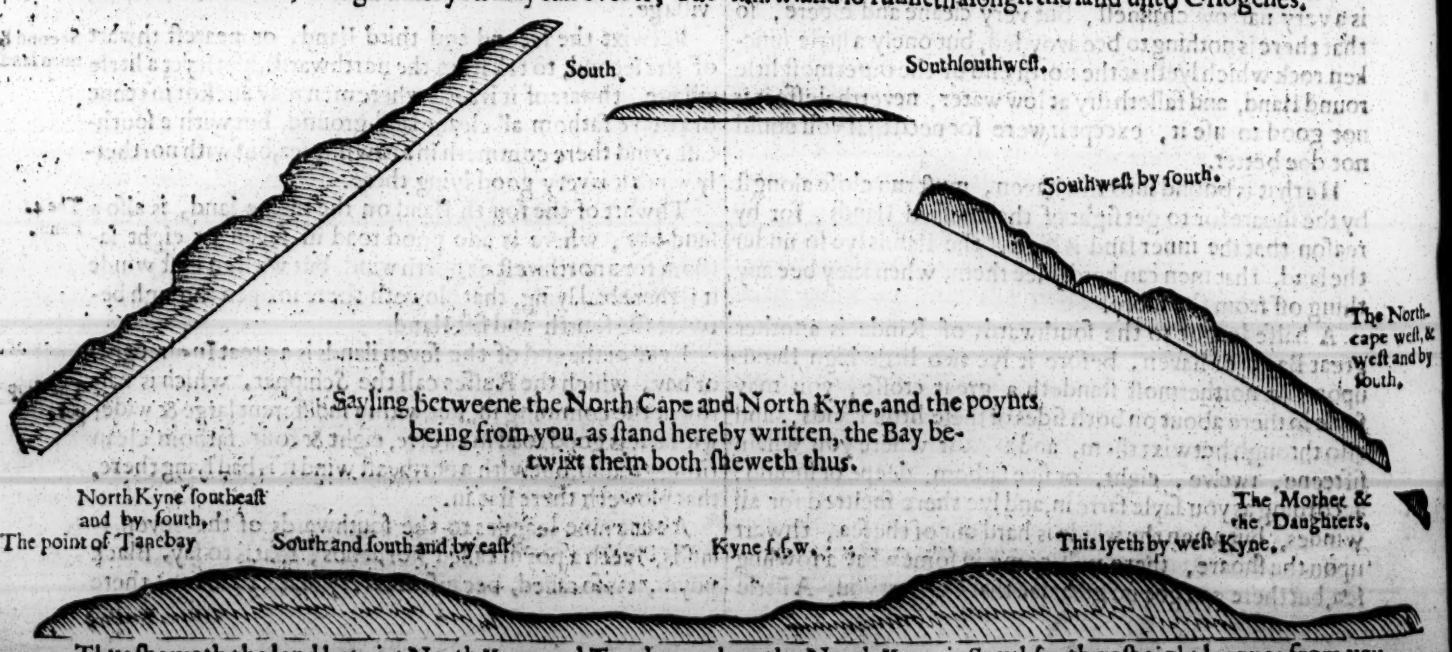
For need, or if it were in extremity, you might alſo ſayle through at high water betwixt the northermoſt iland, and the ſecond, and likewiſe alſo betwixt the ſecond and the third, but if you can by any means doe better, it is not good to doe it.

Men may anckor at divers places within theſe Ilands. Betwixt the two ſouthermoſt ilands, and the innermoſt iland, you may have roade, where you may lye ſheltered for all winds, and ſafe from Ice-drifts out of the ſea. Within the innermoſt iland you muſt alſo anckor over againſt it ſomewhat further in againſt the ſteepe poynt. At the rivers mouth, on the weſt ſhore is a bay where you may ſayle in, and anckor ſo neare to the ſhore as you will, in ſix, five, foure, and three fathom ſoft ſticking ground, there you lye ſafe from all icedrifts. You may alſo anckor on the eaſt ſide, right before the ſteepe poynt, but there you lye not ſafe for ice that commeth out of the river. The tyde here alongſt theſe ilands, agreeth neere with the tyde of Swetenoes, it floweth the Spring tydes neare two fathom and a halfe up and downe.

Behind the point of Swetenos you may run into the bay, and anckor there for a north, northeaſt and eaſt winde, there is cleane ground.

At Kilduyn an eaſt ſoutheaſt Moone maketh the higheſt water.

Alongſt theſe coaſts of Lapland to the eaſtwards of the North-cape, the flood commeth out of the northweſt and n.n.w. and ſo runneth alongſt the land unto Orlogenes.



Sayling betweene the North Cape and North Kyne, and the poynts being from you, as ſtand hereby written, the Bay betwixt them both ſheweth thus.

Thus ſheweth the land betwixt North Kyne and Tanebay, when the North Kyne is Southſouthweſt eight leagues from you and the poynt of Tanebay, South and by eaſt.

Thus

Thus ſheweth Kyne when the hill with the Croſſe is Southſouthweſt from you 2. leagues.

Southſouthweſt — The weſt poynt of Kyne.

Thus like the Mother.

When this hill with the Croſſe is South and by weſt from you, 2. leagues then ſhewed North-Kyne thus.

Tanebay — Kyne ſouthweſt and by weſt.

Thus ſheweth the land betwixt Kyne and Tanebay, when you ſayle alongſt by it ſeven or eight leagues without the land Kyne being Southweſt and by weſt from you.

Tanebay.

Thus ſheweth the Tanebay when as you come off by Kyne, cloſe alongſt by the land, you may ſee theſe two poynts on againſt the high Innerland, the eaſt poynt ſheweth it ſelfe, almoſt like Portland, the weſt poynt ſheweth it ſelfe firſt ſloping, but when you come by little and little before the Sound then it will be alſo ſteep.

Matcorf — Tanebay — Kyne

When as Matcorf is thwart from you, then it ſheweth, and the land to the northwards of it towards Kyne, thus.

Tanebay — Kyne.

Thus is the land to the eaſtwards of Tanebay, when as you ſayle alongſt by it three leagues without the land.

VVardhouſe — The land to the northwards of VVardhouſe.

Thus ſheweth the iland Wardhouſe, when it lyeth South from you three or foure leagues.

Iland VVardhouſe — The maine land

In this forme ſheweth the iland Wardhouſe, and the land to the northwards of it, when it is Southſouthweſt a league and halfe or two leagues from you.

Thus ſheweth the land and the Iland Wardhouſe being weſtnorthweſt from you three or foure leagues.

Thus ſheweth the land of Kegor or the Fiſhers iland, when as you ſayle alongſt by it foure or five leagues without the land.

Thus ſheweth the land of Kegor or the Fiſhers iland, when as you ſayle alongſt by it comming from the weſtwards.

Kilduyn — Maine land — River of Cool.

In this forme ſheweth Kilduyn, when the ſteepe poynt lyeth South and by eaſt, and the River of Cool Southſouthweſt about five leagues from you, and the land to the weſtwards of Kilduyn is very hilly, and the river doth ſhew it ſelfe very wide open as here ſtandeth portrayed.

The River of Cool.

Thus ſheweth the iland of Kilduyn, when the weſt poynt lyeth Southweſt and by South, and the eaſt poynt South and by weſt ſomewhat weſterly from you, the river of Cool lyeth then Southweſt and by weſt from you, the maine land that you may ſee to the eaſtwards lyeth then Southeaſt and by South ſomewhat ſoutherly from you: the land of Laus you may then yet alſo ſee in the north weſt.

Iland Kilduyn.

Theſe three laſt figures belong one to the other by the Croſſes.

Poynt of the Fishers Iland.

Thus ſheweth the Iland Kilduyn, and the land to the northwards of it in the bay towards Fiſhers Iland, when as you are betwixt them both ſeven or eight leagues from land, Kilduyn being about ſouth, or ſouthſouthweſt from you.

Tiribiry

Iland Kilduyn.

Thus ſheweth the land eaſtwards from Kilduyn, when the ſouth end, or eaſt end of Kilduyn is weſt and by north 3. leagues from you.

The land of Tiribiry.

The Iland Kilduyn.

A

The land of Kilduyn and Tiribiry ſhew thus when as you ſayle alongſt by them foure leagues from land, about halfe wayes betwixt both, neareſt to Tiribiry, as is portrayed in theſe two figures here above, the A A one to the other.

The land of Tiribiry.

The Iland Kilduyn.

In this forme ſheweth the land of Tiribiry, when you ſayle alongſt by it, being 4. or 5. leagues from it, and eleven or twelve leagues from Kilduyn.

Swetenoes Third poynt Second poynt Firſt poynt Swetenoes

Sconce.

Thus ſheweth the land betwixt Swetenoes and Orlogenes, as you ſayle alongſt by it.

The third Demonſtration.

Wherein

Are ſet forth the Seacoaſts and Havens of Swetenoes the whole White Sea.

Lombaſcho. FRom Swetenoes to Lombaſcho, the coaſte lyeth Southſoutheaſt thirteene leagues. Under Lombaſcho men may alſo goe to anckor, but it is not there very good lying, eſpecially with great ſhippes; the ground there is not cleane, and when the winde out out of the Sea, commeth in there rowling very much. The lying of this roade ſtandeth drawne out at large in the Card, with the depths ſet downe as it is at high water and neepe tydes: the water faileth and floweth there at leaſt 2. fathom up and downe, and at Spring-tydes little leſſe than three fathom, or two fathom and an halfe.

Within the point, or in the bight of Lombaſcho you may not anckor, there remaineth not above three foot water, and the ground is ſtony and foule.

To the northwards of Lombaſcho lye five Ilands lying alongſt the coaſt almoſt halfe wayes to Swetenoes.

Three leagues to the ſouthwards of Lombaſcho, lyeth a black ſteep poynt, untill there the coaſt lyeth off from Lombaſcho alſo ſouthſoutheaſt, but from that poynt to Orlogenes the courſe is ſouth nine leagues, betwixt them there is no place where men may anckor, but all alongſt a whole coaſt cleane and ſteepe.

Orlogenes.

From the poynt of Orlogenes lyeth off a ſtone-riffe a ſhot of a caſt peece into ſea which falleth dry a great wayes at low water, whereof men muſt take very good heed.

Stone riffe. From Orlogenes to the river Ponnoye it is five leagues: betwixt them lye the three ilands. Firſt from Orlogenes to the two firſt Ilands, the courſe is ſouth three leagues; and from thence to Ponnoye ſouthweſt and by ſouth three leagues. 3. Ilands.

A halfe league to the northwards of Ponnoye lyeth the third of the three ilands, ſo that the two and the third lye about two leagues aſunder.

Theſe ilands are much lower then the maine land, ſo that they can hardly be ſeene or not at all, except you be by the ſhoare, thwart of them you may come neere the ſhoare in ſeven fathom without danger.

Thwart of theſe three ilands, and Ponnoy, the mouth of the white ſea is at the narroweſt.

About foure leagues thwart off to ſeawards from the 3. Ilands in the middeſt of the mouth, lyeth a ſhowld, which is very uneven and ſtony, and at ſome places with low water commeth dry above water, it lyeth ſouth and north, firſt north alongſt the coaſt, at laſt northnorthweſt untill thwart of Lombaſcho, but there alongſt it is deepe enough, 15. and ſixteen fathom. About ſoutheaſt from Ponnoy it is at the ſhowldeſt ſeven fathom deep. You may alſo ſayle alongſt to the eaſtwards of this ſhowld into the white ſea, but there it is ſhowld water, uneven and very ſhowld. The right fareway is alongſt to the weſtwards of it, and five and twenty fathom deep.

Ponnoy is a River whereat low water remaineth no more then ten foot water, it floweth there with a ſpring-tyde three fathom up and downe, and with an ordinary tyde fifteene foot.

From

De Riviere Dwina
vande mont of tot de
Stadt Archangel toe

Pascaerte
vande
WITTE-ZEE
Nieulijcx beschreve door
Iacob Aertzen
Colom

Duytsche Mijlen 15 in een graedt Lieue d'Allem. 15 en un degre
Spaansche Mijlen 17½ in een graedt Lieues d'Espag. 17½ en un degr
Engelsc. en Transc. Mijlen 20 in een graedt Lieue Ang. et Fra. 20 en un deg

Vuert nae Cabogro
Vsser Mvyn
Steenwijck
Archangel oft S. Nicolaes
Kevoda
Versche Rivier
Sedze Rivier
Ombay
Soute Revier
Vorta Ostroye
Floeck Tourra
Soute Kete
Soute Rievier
Kemelve
Jourie habbe
Kicht
Versche Rivier
C. Kiderÿt
I. Soloski
Zalotitza
Warsiga
Oskowa
LAPLAND
WITTE ZEE

S. Niclaes
Duyn
Lodges gat
Eylanden van Podesemske
Swetynoes
Lockena
Eylanden voor Lombasche
Lombaschо
C. Orlogonas
R. Ronoy
I. Souyschowits ofte Cruys Eylandt
Pelitza
Warsiga
Monies
Musmo
Catsnoes
den Blauwen ofte Graawen boeck
Zarretsiel
Eylanden van Podesemske
Binnen bosch
Niesiusmo
Niclaes cloester
Steenpack
Vysschers Eylandt
Carane
Colcova
C. Barso
Mezeenſche Golfe
C. Bona fortuna
Lampas
LOMBASCHO
nae 't leuē ontworpen
RVSSEN,
Carte Marine de la Mer Blanche
SWETENOES
Hier ontrent, ſaemen ſijn de Eylandekens die men heet de negen broers
SWETENOES, met de Eylandekens daer ontrent gelegen, naet leven ont Warpen.
Iockena
I A
E E E
18

Current in the mouth of the white sea,

Gray-poynt,

For to sail into the River of Arch-Angell,

From the three ilands to the iland Sonſnowits; which men doe call the croſſe iland, the courſe is ſouthweſt and by ſouth, or as ſome doe hold ſouthweſt ten leagues, or from Ponnoy nine leagues. All alongſt this coaſt men may anckor every where in eight or nine fathom, and with contrary winds ſtop the tydes; there goe ſtrong tydes (eſpecially in the ſpring) of the yeare of an Ebb.

Between the 3. ilands and the croſſe iland lyeth a poynt, upon which ſtand alſo 3. croſſes, one by the other, which men doe miſtake oftentimes for the croſſe-Iland, but it is much ſmaller to ſee to. When you doe get ſight of that poynt, there ſheweth by it, as if there lay a ſhippe before the land with the topmaſt-ſtricke. The right croſſe iland hath upon the north end two Croſſes, and upon the South end three, by all theſe markes they are good to bee knowne one from the other.

Behind the Croſſe-iland you may have road in 6. or 7. fathom, you may ſail in behind it, aſwell from the northwards as from the ſouthwards, it is there cleane and cleare every where, men doe anckor, that the great croſſe doe ſtand from them e.n.e. there is the right road.

Southeaſt and by ſouth from the 3. ilands, and Ponnoy on the Ruſſe ſide, there goeth in the Meſeens golfe, into which commeth a great River, where men may go up to Kilda, and Kolmogro, and alſo another, upon which the town Slowoda lyeth.

Southeaſt from Ponnoy lyeth a little iland in the mouth of the Meſeens golf, where you may have road under for weſterly and ſouthweſt winds.

The ſouth point of this golf is a low ſand-ſtrand, all grown with trees, there you may alſo anckor alongſt by the ſhore, but cloſe by the land; if you lye ſomwhat off from the ſhore in nine fathom, there the ground is foule, from thence alongſt the ſhoare to the Blewe poynt, it is all a fayre ſtrand.

Current in the mouth of the white ſea.

From the Croſſe-iland, to the blew or gray poynt, the courſe is ſouthweſt twenty leagues. In this fareway in the mouth of the White-ſea, there goe ſometimes very ſtrong currents, eſpecially in the ſpring, through the terrible great freſtuts, of the melting of the ſnow, which falleth from both ſides into the White-ſea, and runneth through this ſtrait into the ſea, with great whirling & terrible riplings: It happeneth ſometimes that the current runneth there ſo terrible ſtrong, to the weſtwards into the ſea, that with a reaſonable gale and full layls, men can doe no more but ſtem the tyde, whereof men muſt be mindfull.

Gray-poynt.

Under the gray poynt men may ankkor on the ſouth ſide in tenne, eight, or ſeven fathom, there it is good lying for eaſterly windes, a northeaſt winde commeth from the poynt, the ground is there reaſonable good, but not the cleaneſt.

From the gray poynt eaſtwards to the Meſeens Golf the coaſt is all faire ſand-ſtrand, with ſome bancks of 2 fathom and an halfe, and three fathom alongſt the ſhoare, not farre without the Land, where ſometimes the current falleth over with great riplings.

From the blew poynt to the river of Arch-Angell, the courſe is ſouth and by weſt thirteene leagues. When as you ſayle ſo towards the river, you ſhall then firſt eſpy the land a good wayes to the weſtwards of S. Nicholas, it arriſeth in a long ſtrake, and then there riſeth more land towards the River, as if it were a round iland, afterwards you ſhall ſee the ſteeple of S. Nicholas, when that ſtandeth ſouth and by weſt and ſouthſouthweſt from you, then you are open before the mouth of the River of Arch-Angell.

For to ſail into the River of Arch-Angell.

If you wil ſaile in there, then bring the ſteeple of S. Nicholas a ſhippes length and a halfe, or two ſhippes lengths to the eaſtwards of the Croſſe ſandhill, keepe them ſo ſtanding and ſaile in right with them, untill that the wood within come midwayes in the middlemoſt Podeſſenske, goe on then ſouthweſt and by ſouth, & ſouthweſt, for to ſaile a weather of the taile or ſhowld, which ſhoteth off from the eaſt ſhoare, when as then the wood within (that is the wood upon the northeaſt point of the River) commeth to the ſouthermoſt of the two woods, which ſtand upon the middlemoſt iland of the Podeſſemske, then you are in the mouth of the channell, right upon the ſhowldeſt of the Barre, the markes of the eaſt taile are, when the wood commeth halfe waies betwixt the ſouthermoſt and the middlemoſt Podeſſemske, when the point of the ſouthermoſt Podeſſemske is ſouthſoutheaſt ſomewhat ſoutherly from you, then you are without the point of the weſt grounds. If you bring that point no more eaſterly from you, you can take no hurt of that point. When you are entred the channell, then goe, as is beforeſaid, ſouthweſt and by ſouth, and ſouthweſt, untill that the ſteeple of *S.* Nicholas come a ſhipps length by weſt the Croſſe ſandhill, then further take the ſounding of the weſt ſhoare, and runne in by it, towards the foot-ſtrand, and alongſt cloſe by it, without going off from it, untill that you come thwart of the white place, or ſpot, on the weſt ſhoare, about the place where it ſtandeth marked in the Card with A. Edge over then from thence eaſt and by ſouth, and eaſtſoutheaſt right to the point of the Wood on the eaſt ſhoare, and on ſoutheaſt in alongſt by the eaſt land, cloſe alongſt by the ſhoare, but thwart of the 2. ilands which lye on the ſtarboard ſide, it is a good wayes alongſt the eaſt ſhoare ſomewhat foule and ſhowle, whereof you muſt take heed: but go all alongſt by the eaſt ſhoare, until that you come by the firſt River on the larboard ſide, edge then over again to the weſt ſhoare alongſt ſouthſouthweſt, until you come to the bight, there it is ſhowld water on the eaſt ſide.

When you are come in the bight, then goe on eaſt ſouth-eaſt, and afterwards eaſt & by ſouth towards the ſtone reach, ſail through there amidſt the channel, alongſt by the buyes, which lye in the middeſt of the deepe, it is on both ſides of the buyes uneven and rugged.

Stone-reach.

When as you come againſt the ſtone-reach there ſtandeth a Fiſhers houſe upon the Weſt ſhoare, by the little River that runneth into the land, at the north end, or Weſt end of the ſtone-reach, thwart of that foreſaid houſe lyeth a great ſtone under Water, which you may ſaile about on both ſides, it lyeth about the middeſt of the fareway, as you come ſayling on, men ſaile commonly about to the weſtwards of it, all alongſt by the weſt ſhoare, like as alſo through the ſtone-reach, for the w. ſide is deepenough, & at ſome places ſomewhat ſoft ground, but the eaſt ſhoare is full of rocks.

When as you are paſt the buyes, then you muſt keepe off againe, ſomewhat from the ſhoare. There was wont to lye a little Iland at the end of the ſtone-reach, but that is of late yeares altogether skowred away with the Ice. When as you are now through the ſtone-reach, the courſe is firſt ſ.e. & afterwards ſ.e, and by ſ. untill you come in the bight, then goe on e.ſ.e. and keepe yet to the weſt ſhoare, untill that you ſee the towne of Arch-Angell, then ſaile right towards it, but avoid the point on the larboard ſide, for it is foule.

Arch-Angell.

For to goe from Arch-Angell further up the River to Kolmogro it is about twelve or thirteene leagues moſt ſoutheaſt, but the River runneth upwards with many croocked bights.

kolmogro.

For to ſail out of the River.

For to ſaile out of the River of Arch-Angell, then runne out by the foot-ſtrand, and keepe the ſounding of the weſt-ſhoare. When as you beginne to ſee the ſteeple of S. Nicholas, then bring it a ſhipps length to the ſecond or middlemoſt Podeſſemske, there lyeth a black Hommock upon the ſtrand. The north ſide of the wood within, commeth then over that Hommock. then goe on northeaſt and by North, and northnortheaſt, towards the Podeſſemskes. When as then the wood within commeth to the north ſide of the ſouthermoſt of the two woods, upon the middlemoſt Podeſſemske, then you are upon the ſhowldeſt of the Barre, but when the point of the ſouthermoſt Podeſſemske is ſouthſoutheaſt ſomewhat ſoutherly from you, then you are at the end of all the ſhowlds, and may goe your courſe through the ſea, where you pleaſe, no ſhowlds ſhall hinder you.

S. Nicholas.

From the Barre of Podeſſemske, or from the River of Archangell to the roade of S. Nicholas it is foure leagues. There ſtandeth a Beacon at the end of the iland, where the Engliſh houſe ſtandeth upon, by weſt that beackons is the roade for the Engliſh ſhippes, in ſixe or ſeven fathom, according as they lye neare or far from the ſhoare. The Engliſh River lyeth in there eaſtnortheaſt, and northeaſt and by eaſt, alongſt by the Cloyſter of S. Nicholas, but that is ſo ſhowld a river that no ſhips can goe into it, men muſt lade

English River.

them without with Lodges.

About s.w. and s. west and by west from the barre of the river of Arch-Angell lyeth the Salt iland, upon it standeth a Cloyster, & is fast to the main land. This land lyeth off from thence to the Cape de Onega, west and by north.

Warsiga. From the Crosse-Iland to Warsiga the course is west-southwest, and west and by south about foure and twenty leagues. Warsiga is a village, lying on a river, where is a Sammon-fishing, which lyeth into the northwards within the land, you cannot come into the River with shippes, there is no more then eight or nine foot water, but must stay without in the Roade before the River, there is cleane sand-ground, without any fowle ground, so that you may anckor there without danger, so neare or farre from the shoare, as you will.

This River men doe know (when they sayle alongst the coast) by three high Hommocks, which are higher then all the other, and almost of fashion like the three hilles by Bayonne in Galicia, to the northwards of it are white sand-hills with trees upon them. Even by west the three foresaid hommocks goeth in the river.

For to saile from Warsiga to Ombay the course is alongst by the coasts a little west, west and by north, and then west-
Poynt of Tauria. northwest, afterwards the most northwest, unto the poynt of Tauria six and thirty or seven and thirty leagues. About halfe wayes betwixt them, well so neare Warsiga as Tauria lyeth on the coast a high bare hill, thwart of it and to the westwards of it lye some bancks, whereof you must take heed.

The poynt of Tauria is a high steepe poynt full of trees, to the eastwards of this land the poynt falleth away into a great Baye farre alongst to the eastwards. About five leagues to the eastwards of the poynt of Tauria, lyeth a rock, a good wayes from land, which is not very great, but very good to be knowne, it sheweth a farre off, as if there
Tourie Babbe. sate a great Ape upon it, this rock the Russes call Tourie Babbe that is to say, Grandmother of the poynt.

Within that Rock in that foresayd Baye it is all showlde water, uneven and foule ground, where you may not anckor nor have roade, but to the eastwards of the poynt Tauria you may anckor for westerly and northerly windes, somewhat to the northwards of the poynt in the Bight, there it is showld, but by the poynt it is deepe, there you must anckor close by the land.

Volna Oftrove. By the west poynt lyeth the iland Volna Oftrove, by the Dutch-men called the Reeme-iland. From the poynt Tauria to that Iland, the course is Northnorthwest two leagues.

Betwixt the iland and the land of Tauria lyeth also a little Iland, betwixt these two ilands, you may (for need) sayle through with a shippe, but it is very narrow, at the north-east poynt of Ostrove is roade in thirty fathom, then you lye with the shippe, (when she lyeth wended to the Iland) in eight fathome, so very steepe and rising is the ground there.

From Volna, Ostrove, or the Reeme iland to the Gouba
Salt river. (that is the salt river where men doe lade, lying a half league by east Ombay) the course is northnortheast three leagues which lyeth in north, & north & by east, it is not very broad but deepe, at the comming in it is in the middest foure and twenty, and five and twenty fathom, farre within, five, or six fathom deepe, but there it is foule. Men doe commonly anckor a halfe league within the river, on the east side, with an anckor in the middest of the river, in sixteen or eighteene fathom, and with a cable on land, there it is good lying with all windes, except with a southsouthwest winde, which bloweth there open in.

Ombay About halfe a league to the westwards of it lyeth the fresh River of Ombay, which is so showld and foule, that men cannot goe in there with shippes, except they bee small, and also the Russes are not willing they should come there; for not to spoyle their Sammon-fishing, there is great store of Sammon caught, which is carried from thence with boats to the shipps in the salt river.

Kandalex. From thence the coast lyeth somewhat alongst w.s.w. & then upon n.w. to Kandalex.

Thereabouts lye also more lade-places, where Sammon is caught, as Kierickarick, and Kargapoll, that lyeth s.w. from Ombay, on the Koreels side. Kierickarick Kargapol.

The cape of Candenoes and Orlogenoes lie northeast and southwest seven and forty leagues asunder. The poynt of Candenoes is very good to bee knowne, there stand 5. great crosses upon it for markes. When as you fall with it, you may very well perceive, that the land falleth away, on the one side to the southwest, towards the White sea, and south-east on the other side. Candenoes

About thirteene leagues to the eastwards of the cape de Candenoes lyeth an iland, called Morsonowits, to the east- Morso-
wards of it goeth a great Baye into the land, but it is very nowits.
showld water, with many showlds and Dwale-grounds. It hath heretofore happened, that some ships have beene here lost, thinking that they runne into the mouth of the White sea, for it agreeth very neare with the course, and also with the height of the White Sea, bnt it is good to know by the land, and to discerne one from the other, for the Russe coast to the eastwards of Candenoes is altogether a land with Sand-hills, and a flat strand, but the coast of Lapland is high and hilly. In this Bay goeth a River through the land, where you can come through with Lodges into the White sea.

Thwart of this Baye, about sixe and twenty leagues Calgoya.
east, and east and by south from Candenoes lyeth the Iland of Calgoya, being thirteene leagues long, you may sayle round about it, but upon the south side runneth a great riffe alongst the land: they that come from the eastwards must avoyd it, for it is fast to the west end of the Iland. Upon this iland are great store of Geese, which in the Sommer are altogether bare, or naked, without any feathers, which sit and brood upon one egge, which they have lying under them, and so doe hatch their young one, which are there in such aboundance, that the Russes doe come there a shoare with their Lodges, and lay a deele or boarde upon the land, and drive the Geese with staves, into their boats or Lodges, in such aboundance, that they salt them into Barrels, in great aboundance.

From Candenoes to the iland Tussara it is east southeast Tussara.
two and forty leagues betwixt them both goeth in the fore-
Swelge-noes. sayd Baye. By west Tussera lyeth the poynte of Swel-genoes.

From Tussara to the River of Colcova the course is east Colcova.
seven leagues, which is a good River, being twelve foot deepe, but there is no other trade, but that the Russes doe come there from Colmogro and S. Nicholas with Lodges, for to trade there, and to barter their wares there for Skins and other wares.

Seven leagues to the eastwards of the River of Colcova, lyeth the River of Pitsana, there is but six foot water, and Pitsana.
is an unknowne place, but a little to the westwards of it lyeth a showld, which you must avoyd: Olliver Bruneel in his voyage from Nova Zembla came on ground there.

About thirteene leagues to the eastwards of Pitsana lyeth the river of Pitsora, which lyeth in southsoutheast by Pitsora.
the East poynt, and hath twelve foot water, the land is there low with Sand-hills, and upon the west side standeth a pack-house with some crosses. When you come within the River, you must edge up westwards towards the Pack-house, and anckor there in three, or foure fathom, there is a great Haff, or broad water, You must avoyd the East side of the River, which is full of Sands and bancks. The little towne of Pitsora lyeth about five and thirty leagues within the land, there is great aboundance of costly Skinnes and Christall.

Betwixt Pitsora and Waygats lyeth Oltgyn, and without Oltgyn.
the Land lye two rocks or little Ilands, the one called Orangien, and the other Grave Maurice, you may anckor under them in six or seven fathom. From the southermost shooteth off a little riffe, but you may sound it well in three fathom.

To the eastwards and to the westwards of these two litle Ilands is a great Bay, where it is showld water, the land runneth there round to the poynt of Pitsora, all alongst in a Bay off from Pitsora unto the Waygats. It is from Pitsora to Waygats n. e. and by e. 32. leagues.

VVaygats. Waygats, which is also called the Straite of Nassawe is a Straite where men may sayle through into the Tartarish Sea, it lyeth in first about east, afterwards northeast through about eight or nine leagues, about halfe wayes through lyeth an iland, which you may sayle about on both sides.

Traynbay A little within the poynt, on the north side is a fayre Baye, which you may sayle into so deepe as you will, in five, foure, and three fathom, good sticking ground, alongst by the east shoare is the deepest water, there you shall lye sheltered for all windes and ice-drifts.

Through this narrow or Strait, hath beene divers times attempted, or undertaken, for to discover, and to finde a way, for to passe alongst to the northwards of Tartaria, unto the rich Kingdomes of Cathay and China, and so forth to the Molucques, but in vaine because of the terrible ice that remaineth there the whole yeare through, and can never melt, by reason of the continuall cold.

Oby. From the east end of the Straite Waygats to the Baye of Oby it is eastsoutheast, and southeast & by east forty leagues. To the eastwards of it that land lyeth forth northeast forty leagues more, to the two northern rivers, and then yet so forth alongst n. e. but how far is yet unknowne.

Nova Zembla. The West east of Nova Zembla lyeth to the northwards off from Waygats to Costintsarek northwest about three and fifty leagues. To the northwards of it the land falleth away, about north and by east to the poynt of Langenes, or the States poynt, further northnortheast, northeast & eastnortheast to the ilands of Orangien, the northermost part of Nova Zembla, in the height of 77. degrees and an halfe.

Of the tydes and course of the streames, about these foresaid places.

At the North-Cape a Southwest moone maketh high water.

Thwart of the Tanebay a Southwest moon maketh high water.

At Wardhouse a Southwest moone maketh high water.

At Kilduyn an eastsoutheast moone maketh the highest water.

At Seven-Ilands a southeast moon maketh high water.

At Swetenoes a South and North Moone maketh high water.

Alongst the coastes to the eastwards of the northcape the floods come out of the northwest and northnorthwest, and run so alongst the coasts of Lapland, unto Orlogonose.

At the three ilands a Southwest and northeast moon maketh high water.

At Katsnose point an east and west moon maketh the highest water.

Before Podessemske and S. Nicholas an east and by south, and west and by north moon maketh the highest water.

At the iland of Nova Zembla a Southeast moone maketh high water.

From Orlogenes and the three ilands, the flood falleth into the mouth of the White Sea, towards the graye poynte of Catsnose about Southsouthwest, and Southwest and by west.

But about the poynt of Catsnose, the flood falleth into the White Sea, partly towards Warsiga and Ombay, and also towards the Podessemske and S. Nicholas.

To the eastwards of Candenoes, towards the iland of Colgoyen, the flood falleth east and by South, as also alongst the same iland, and from Colgoyen towards the Waygats the tyde falleth east and west. Alongst Nova Zembla, the tydes turne about with the moone alongst Rusland, they come out of the west and westnorthwest, betwixt Candenoes and Pitsora, and fall so alongst Rusland.

The floods towards Waygats come from Colgoyen and Nova Zembla, and fall together east and by north through the Straite of Waygats towards the River of Obye, so that the ebs and floods doe keep open the channell of Waygats, that they are oftentimes without ice, or at least but with ice that drives in schooles.

But to the eastwards of the Waygats, the floods come out of the northeast, and fall so into the Oby, and into the Strait of Nassaw, there the water riseth and falleth, but keepeth no certaine tyde.

Of the Depths and grounds both to the eastwards and westwards of Waygats.

All the coast alongst off from Candenoes unto Waygats, men doe finde a flat rising ground, the most part sand and soft ground, he that must sayle there in misty weather, must know that in 8. or 9 fathom depth, he is 4 or 5. leagues from the coast, but when it is 30. 35. or 40. fathom, then he is farre enough from the land. So it is also alongst Nova Zembla, and also over the east side of Waygats, but when you come before the Strait, it will be showlder by little and little.

How these lands doe lye one from the other and from other lands.

From the North-cape to the North-kyne, east and by South 13. leagues.
From the North-kyne to the Tanebay e. s. e. 10. leagues.
From the Tanebay or Markorf to Wardhouse, southeast & by east, s. e. and s. e. and by South 16. leagues.
From Wardhouse to the poynt of Kegor southeast & southeast and by south 10. leagues.
From Kegor to Laus southeast and by south easterly 9. or 10. leagues.
From Laus to the River of Kool south and by east, and s. s. e. 10. leagues.
From Laus to Kilduyn. S. e. & by south easterly 10. leagues.
From Kilduyn to the poynt of Tierrebirry s. e. and by east 5. leagues.
From the poynt Tierrebirry to the Seven-Ilands, s. e. & by s. 13. leagues.
From Tierrebirry to Swetenoes, the coast lyeth s. e. & by s. 40. leag.
From Swetenoes untill 3. leagues past Lombascho s. s. e. 16. leagues.
From thence to Orlogenes south 9. leag.
From orlogenes to the 3. Ilands South 3. leag.
From the three ilands to Ponnoy, southwest and by south 3. leagues.
From the 3. ilands to the Crosse-Iland Sousnowits South west 20. leagues.
From the Crosse-iland to Catsnose, or the gray point s. west 20. leag.
From the Gray poynt to the River of Arch-Angell s. and by west 13. leagues.
From the Barre of Arch-Angell to the Salt Iland s. w. somewhat westerly 7. leagues.
From the salt iland to the C. Onega west, & west & by north 17. or 18. leag.
From the C. Onega to the ilands Solofky n. w. and by west 20. leag.
From the Crosse-iland to Warsiga westsouthwest, and west and by South 24. leagues.
From Warsiga unto the poynt of Tauria west, west and by n. w. n. w. and n. w. 37. leagues.
From the poynt of Tauria to Volna Ostrove, northnorth w. 2. leagues.
From Volna Ostrove to the Gouba to the eastwards of Ombay n. n. e. 3. leag.
From Ombay to Kandalex n. w. and by west 13. leag.
From Orlegenes to the cape de Candenos the course is n. e. 47. leagues.
From Candenoes to the Iland Colgoye east and by South 16. leag.
From Candenoes to Swelgenoes s. e. and by east 29. leag.
From Candenoes to the iland Morsonewits s. e. 13. leag.
From Candenoes to Tussara it is e. s. e. 43. leag.
From Tussara to Colcova it is east 7. leagues.
From Colcova to Pitsana e. and by n. 7. leagues.
From Pitsana to Pitsora e. and e. and by n. 13. leagues.
From Pitsora to Waygats, the course is about n. e. and by east 14. or 16. leag.
From Catsnose to the ilands of Solofky west or somewhat more southerly 37. leag.

From

From Catsnose to Warsiga n.w. & by west 16. or 17. leag.
From Catsnose to Polongin n.w. and by n. 23. leagues
From the Ilands of Solofky to Ombay in Lapland north 32. or 33. leag.
From Solofky to Warsiga e.n.e. 32. leag.
From Solofky to Polongin e. and by s. 50. leagues.
From Candenoes to Coftintsarck in Nova Zembla n. e. and by east about 60. leagues.
From the east end of Colgoyen to Waygats east 60. leag.
From Pitsora to the east end of Colgoyen westnorthwest 45. leag.

Heights.

The Iland Kilduyn lyeth in 69. degrees and forty minutes.

The poynt of Catsnose or the Graye poynt lyeth in 65. degrees.

S. Nicholas or the River of Archangell in 64. degrees 30. minutes.

The Ilands of Solofky in 65. degrees.

Ombay in 66. degrees 45. minutes.

Cape Candenoes 69. degrees 30. minutes.

The Iland Colgoya in 69. degrees 10. minutes.

The Rivers of Colgoya, Pitsana, and Pitsora lye in 68. degrees 30. minutes.

Waygats or the straite of Nassow lyeth in 69. degrees 45. minutes.

The first Part

The THIRD BOOKE

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

The Descriptiō of the whole

EAST-SEA.

With Privilege of the high and Mighty Lords,
the States Generall, for tvvelve yeares.

Printed at Amsterdam,

By Iacob Columne, on the Water, in the Fierie
Columne, Anno M. DC. XL.

Pascaarte vande OOST ZEE

T'Amsterdam. By Iacob Aerss. Colom

Duijtsche mijlen 15 in een graedt Lieues d'Allemai 17 en nu degre

Spaensche mijlen 17½ in een graedt Lieu d'Espai 17½ en un degr

Eng. en Fr. mijlen 20 in een graedt Lieues Anglet Fra 20 en nn deg.

SWEDEN

Noordkoppen

Zuijderkoppen

Hondsbay

Schelsuyr

Westerwijck

Stockholm

Gevel

Wijnhalm

Hartsick

Rootholm

Esstap

Landsort

Aeel Rack

Barsont

Walmerwijck

Dansuijckergadt

Copersteen

Sanden

Gottenburgh

Conshack

I. Vroiwenbergh

Flier huij

Monstersondt

Waersbergen

Valkenburgh

I. Tuloo

Laholm

I. Swederoe

Engelholm

Elsenborgh

Landskroon

I. Ween

Elboge

Malmuyen

Sconer

Falsterbon

Drakborgh

Bleker

Wyck

Santhamer

Craybeer

Stickholm

Munsteraas

Skeggenes

Calmer

Steensoe

Berkschaven

Christianopolis

Groen Studeon

Rotenburg

Elsholm

Selsborgh

Aluys

I Hanneu

Der Klippen

Sw. Louser

Oeland

Godtlandt

Karels

Wijsbuij

West

Oostergarde

Farsondt

Salsonrm

Hoodskyn

Engelholm

Kol

Meun

Oertholm

Bornholm

Doornhos

Lasmont

t Peert

Rabbenes

Barth

Stralsont

Stettyn

Camin

Gripswalde

Hoff

Coslin

Rolbergen

Lubs

Rijgbolt

Heel

Dantzigk

Elbing

DENEMARCKEN

POMEREN

Met Privilegie der Ed H M
Heeren Staten Generael
voor twaelf jaren

OOST FINLANT

LIIF

LANDT

COERLANT

PRVYSSEN

Les Costes Marines de
la Mer Orientale.
Per Iaques Colom

Abo
Alite
Hanga
Raßeborgh
Lusa
Essira
Helsinga
Vanas
Ecanes
Cuma
Elsenb
Borgo
Parna
Fromat
Peltingh
Reisborgh
Hettes
Meersteeren
Meus hoofden
Peltingsont
Reuel steen
Nargen
Wolf
Hogelant
Dagerort
Clooster
Reval
Kock
Brocklom
Reisborgh
Hontfoort
Keke
Oesel
Arensborgh
Abrick
Parnout
Runen
Kijn
Domesnes
Lijserort
Derwinde
Sackerwyck
Steenort
Terschre
Sevenbergen
Memmel
Coersh Haff
Koenixbergh
Boldra
Rige
Diunemond
Pelingh
Reisborgh
Hettes
Oesel
Wyborgh
Lorsnes
wykers
Hogelant
Nerua
Sommers
Tutiers
Russe baken
Narva
Mummickenwyck
Wisenbergh
Abrooge land van der Narve

SCHONEN

S W

De Cuſten van Schoonen en Swede
van Valſterboen tot Chriſtianopolis
Bornholm en de Cuſten van Pomeren
van't Eylant Rugen tot Rygs-hooft

Tot Amſterdam
By Jacob Aertsen Colom

Les Coſtes Marines
de Schoonen et Suede
de Valſterboen à Chriſt
ianopolis. et Bornholm
et Pomeren de Iſle de
Rugen à Rygshooſt
Par Iaques Colom.

P O M E

Ahuys
Beere Kerk
Vervallen Kerk
Schelingh
Elsholt
Bosch
Somerhuy
Santhamen
Valsterboen
Drackborgh
Wyster
Joesteen
Stralen
Bornholm
Nex
Rottum
Hasle
Sandwick
Suane
Hertholms
Whitmant
Dourabos
Jasmont
Saggard
RU
GEN
Bergen
Puthus
Stralesound
Griffswalde
Wolgast
Slot
Camin
Kollbergen
Friest
Kaff
Wollim

N

Grijpskerke

OELANDT

Groen Eylandt
de Vytlegger

Zeeuwsche Gat

Zuyderveere

GODT:

LANDT

Middelburgh

CASSUBEN

Reffel

Wolfacken

Lyba

Sernevissa

Rugenwalt

Gerlsberg

Stolp

Colberg

Memmingen

Duijtsche Mijlen 15 in een Graad. Lienes d'Allemai 15 en un degre

Spaensce Mijlen 17½ in een Graad. Lienes d'Espaigne 17½ en un degr

Eng. en Franç. Mijlen 20 in een Graad. Lienes Angl. et Franc. 20 en un deg

20

Elburgh.

VVestee.

Goesbeer

Sandhamer.

The third book of the Fiere Columne.

CONCERNING

The Eastern and Northern Navigation.

Containing

The description of the whole East Sea.

The first demonstration,

where in

Are described the sea-coastes of Valsterboen to Christianopolis, and from the Iland Rugen to Ryghs-head.

HOw men shall saile about the riffe of Fasterborn hath been here before rehearsed. The coast from Fasterborn eastwards lyeth most east & by north somewhat northerly. First from Fasterborn to Elburgh are three leagues. If you wil ancker before Elburgh, then bring the Cloyster & the church within a fathom or a fathom & a half near one to the other, & saile so right in unto the town, you may ancker by it in 4, 3, or 2 fathom & a halfe. Elburgh.

From Elburgh to Wtstede are seven or eight leagues. Betwixt them both about 3 leagues to the eastwardes of Elburgh, and five leagues to the westwardes of Wtstee is a point, off from which lyeth a shoulde, come no nearer it then eight or nine fathom. Wtstee lyeth in a bight, and hath a high sharp steeple. If you be bound thether, then bring the steeple north from you, & then saile in right with it towards the strand; there standeth a red tiled house to the eastwards of the bridge, bring that house and the end of the bridge one in the other, and saile in so, and runne to the westwardes of the bridge, and ancker there in 3 fathome, or 2 foot lesse, there is cleane sand-ground. When you come from the west, and are past that foresaid should, then you may boldly runne alongst by the shoare in 3 fathom & an half, without feare. Wtstee.

Three leagues to the eastwards of Wtstee lyeth a high point called Goesebeer, from thence to Sandhammer is a league. Goesbeer

From the point of Goessebeer runneth off a great should farre to seawardes, and lyeth alongst the coast, unto neare Sandhammer, you may sound it in six, eight, & ten fathom, as you will. When you runne over it in tenne fathom, then lyeth the north-end of Bruntholm about east from you, and the point of Sandhammer northnorthwest. Under the Sandhammer is good anckering for a west, westsouthwest westnorthwest, & northwest winde, in five or sixe fathome. When you come out of the northeast, you may runne along by this coast, with a northwest winde, in seven, eight, nine, or twelve fathom, untill past Goesbeer, for to avoid Bruntholm. Sand hamer.

The point of Goesbeer and the north end of Bruntholm lye northwest & by west and southeast & by east about five leagues asunder, but Wtstee and the foresaid north-end of Bruntholm northwest & southeast eight leagues asunder.

For to sayle from Fasterborne about to the nortwards of Bruntholme you must go on east, so long untill that you have the length of Wtstee, then forth east and by north and then you shall sayle yet neer enough to the poynte & shoulde of Goesbeer, come no nearer it then seven or eight fathom. But to sayle from Fasterborn to the southwards of Brontholm, the course is east and by south, two and twentie or three & twentie leagues, and alongst the south side of Brontholme c. s. c.

The iland Bronthollem is clean round about, except on the southeast poynt, there runneth off a foule riffe, called Brewers rif, which men must avoide. On the northeast side you may runne alongst by it upon your lead, without doing amisse, in 12 or 13 fathom, & alongst the s. w. side in 8 or 9 fathom. Bronthollm.

Men may anckor round aboute Bronthollom, at divers places, as before Rottum, and to the northwards, before the Castle, thwart of Sandtwick, Suaux & Nex. Rode under Bronthollm.

Before the Village, betwixt Rottum, & the castle that standeth upon the n. w. poynt, is good anckering for an e. or n. e. winde, in 13, 14, and 15 fathem, but not verie cleane ground. Rottum.

Thwarte of the Castle it is good lying for an eastnortheast, east, and eastsoutheast winde in eighteene and twentie, and also fourteene and fifteene fathome, sand grounde, but nearer the shoare the ground is not verie cleane, the nearer to the shoare the fouler ground.

Under the northwest poynte before Santwick there is good anckering for s. w. windes, and you may come neare unto that poynt. From the n. w. poynt to the other poynte the shoar lyeth e. s. e. and w. n. w. Sandwick

On the east side is good anckering before Suaux & Nex: but before Nex it is not verie clean. By Nex runneth off a little riffe from the shoare, which is steepe on both sides: but if you come no nearer it then in tenne fathom, you can take no hurt of it: to the northwardes of Nex lyeth also a great rock. He that wil ancker before Nex, let him ancker so, that the flat steeple which standeth aboue Nex, doe stand betwixt the west & west and by south from him, and that the north poynte by north and by west, and the south poynt be southsouthwest from him, there it is two and twentie fathom deep, and cleane sand ground. At many other places it is otherwise stonie and rough ground, with s. w. & w. winds you have there a wether shoare. Nex.

The Eertholmes lye from the north-end of Bruntholm east & by north and west & by south foure leagues asunder, and from the south-east end south and north five leagues. In the Eertholms is a littlie Haven, but by reason that is not used it is unknowen.

Betwixt the north point of Brunthollom & the pointe of Sandhammer, but neareſt to Brunthollom lyet a showlde of six fathom, were sometimes Fishermen doe lye to fish, it is not verie great, but hard stonie ground. Shewlde by Brontholm.

From Sandhamer the coast lyeth northeast & by north a league to Somerhaven, this is a round bay, within it is very good ancker ground. From thence the coast lyeth about north 5 leag. unto Ahuys. From the north point of Bronthollem to Ahuys the course is north somewhat northerly abour ten leagues. But to Hanno north, betwixt 11 or 12 leagues.

Ahuys lyeth upon a river, where sometimes is before the towne 10 or 11, and sometimes also no more then 4 or five foot water, according as the water commeth off out of the

land, upon it is a great fishing, where in the sommer time are great store of good Els taken. To the eastwardes of the mouth of the river runneth off a stony flat from the shoare, & to the southwards of rhe river a soule stony riffe, right off from the shoare alongst by the foresaid flat, so that there lyeth in a channell betwixt the foresayd flat & riffe, which is called the Eastergat.

Through this foresaid riffe lyeth in a channell untill into the East ergat, on against the flatte, which is called the Southergat. If you wil sail into this southergat, comming from the southwards, then runne to the west shoare to the southwards of Ahuys, untill you come in 5 or 6 fathom, and then you shall see upon the north shoar, n. & by w. or somewhat more westerly from you, a cape or beacon standing a little from the strand within the land, of fashion like a mill without wings: Bring this beacon to the west side of the high Hill, which lyeth somewhat further into the Land, to wit, even in the going off of the highest of the hill, keepe these markes so standing, & sail in right with them, untill that Ahuys commeth over that tree, which standeth there at the north end of the wood; or that the white Countrie-church come to the northwards of the little houses of Ahuys, then goe on northwest, or bring that foresaide white-countrie-church in a little valley, a little to the northwards of an old ruined castle, where of there standeth yet some of the walls upon the north side of the River, & sail so on, untill that Ahuys come to stand in the middest of the River, ancker there in two fathom and an halfe, or three fathome, there is the roade there can goe noo sea. In this souther gatt it is 2 fathom, 2 fathom & an half, and sometimes also at least 3 fathom deep.

Eastergat Ahuys. For to saile into the Easter-gatte, comming from the southwards, keepe in sixe or seven fathom, & runne so to the north shoare, & then you runne alongst without the riffe, that lyeth off by south the rivers mouth from the w. shoar, untill that Ahuys doe stand right west from you, then there commeth a great tree to the north side of the wood, that standeth upon the west shoare, keepe that so standing and runne in right with it, untill that foresaid countrie-church come to that aforesaid old peece of wall, of the old ruinous castle, and then right in, as hath beene before said. Or runne in by the first markes, untill within a shot of a cast peece neer to the west shoare, & then edge up to the north shoar, untill that Ahuys come in the middst of the River, & ancker there, as hath been said.

Hanno. Hanno is a little high round iland, which men may sayle round about, under it is good roade for south and southeast windes.

Behind Hanno runneth up a little River to Self brough, but serveth onely for small shipps or Crayers, which go not deepe.

Elcholm. Rottenbuy From Ahuys to the Rockes the course is east & by south twelve or thirteene leagues, betwixt them both lye divers little townes, as Elcholme & Rottenbuy, where men may ancker before, in sixe, seven, and eight fathom good ancker ground: And other Havens more, but little or nothing knowne by Hollanders. Thwart of Rottenbuye lyeth a great Rocke somwhat off from the land, called Malqueren, under which men may also ride.

From the north point of Brunthollom to the Rocks the course is northnortheast sixteen leagues, but from the point of Sandhammer eastnortheast seventeene leagues. If you runne alongst close by the north point of Brunthollom, you shall runne with a north waye, alongst even without the Rocks: But, if you runne alongst close by the point of Sandhammer, and will saile from thence to the Rockes, you shall with a northeast and by east waye fall with the Land even within them, or to the Westwardes of them.

The rocks. The Rocks are som little rocks together, which men may saile round about, but can have no Roade under them; they lye 3 or 4 leagues distant from the maine land, & are smaller then the Eartholmes.

A league or two to the northwardes of them lyeth the Vrouwen or Greene iland, by some callee the Rough-iland, and also the Outlyers: It is not so brocken in it selfe as the Rocks, and also much greater, off to seawardes from it, lye some rocks, to the westwards of it, it is al full of rockes, som above & some under water, alongst even fast to the Land, you may saile about within the Greene-iland betwixt it & the rockes, but no man can doe it, but he must be verie well acquainted there, and then also not without great daunger. To the southwardes of it you may also finde Roade at some places, but you must be verie wel acquainted and also not without daunger, by reason of the multitude of suncken rocks & sharp grounds. The east side of the Outlyers lye from the rocks northeast & by north, The south end of Oeland Oeland is a sharpe pointe, and lyeth from the rockes east & west about eight leagues distant. Thwart of it, betwixt the maine land & the aforesaid south pointe of Oeland, it is about 4 leagues broad, betwixt them both goeth in the Calmer-sounde.

For to saile up into the Calmer sound, then goe on from the Rockes, or from the Outlyers northnortheast, and then you runne in betwixt Oeland & the maine land, saile in there betwixt them both, a middest the channell, both the shoares are verie soule: but if you come not nearer them then in seven fathom, you can take no hurt there.

From the Rockes to Calmer are fifteene or sixteene leagues: About halfe wayes betwixt them, northwest from Southerorden, the southermost point of Oeland lyeth the towne of Christianopell, lately builded there upon a little Iland by Kings Majestie of Denmarke, and so called after his name. Thwart of it was wont to lye upon the maine land a little town called Overschare, now it is one with Christianopel, thwart of it lyeth a ledge of rockes about a great English mile off from the shoare southeast into the sea, com no nearer it then in ten fathom. Christianopel. Overschaer.

At Christianopel is a haven on the east side, from it lyeth off a riffe towards the northeast into sea; therefore he that wil sayle in there, must come in from the northwards for to avoide this riffe.

To the northwardes of Christianopel towardes Calmer, it is on both sides (as well on the side of the maine land, as on the side of Oeland) all full of rocks & soule grounds, but you may sound both the shoares: in the middest betwixte both in the farewaye, it is tenne & twelve fathom deep, all soft claye grounde, to the southwardes of Christianopel it is deeper, but to the northwards towards Calmer it is by little and little shoulder.

Two leagues to the northwards of Christianopell lyeth Bercker haven, there men doe lade oken beams, there-with-in it is good lying, but verie badde for to come in or out, because of the multitude of suncken rockes, & other soule grounds, which lie before it, about a half league off from the shoare to seawards. Bercker-haven.

Aboute a league to the northwardes of Berckerhaven lyeth Hosmes grownd, which is a verie bad soule ground, lying somewhat farther off from the shoar to seawards, then the other rocks which lye alongst the shoare, thereof you must take heede. Hosmes ground.

About a league to the southwards, and two leagues to the northwards of Hosmes grounde lyeth a point called Steensoe, which is a somewhat high rough and verie soule poynt, a halfe league long, lying within, a halfe league neare to the towne, to the westwardes of it runneth in a great bight, where is good lying also for many shippes, but you cannot come in there, because of the manie soule grounds and dangers, except it be with a verie skilfull Pilot: upon the west side, over against the poynte standeth a white house. The King of Denmarks armie of ships laye there, in the time of the last siege of Calmer. Steensoe.

When you come so farre in, that you leese the south end of Oeland out of your sight, then you gette the Castle of Calmer in sight, sayle towards it, but shunne the shoares, as hath been sayde here before. The Castle hath four great towres, when the two eastermost of the four come one in the other, then is the Castle about northwest from you, then you come by the Grimschaer, this is a Rock good to be knowne, upon it standeth a mast, with a Barrell upon the toppe of it, which lyeth much nearer the west shoare then Oeland, when you get it in sight, then sayle towardes it. Thwarte of the Grimschaer or Tonholm lyeth a suncken Castle of Calmer. Grim-schaer.

rock

rock, about a cables length off from it, and a little more to the eastwards, upon it is no more then five foot water.

The farewaye is through betwixt this suncken rock and the Grimschaer about northeast & by north, sayle close alongst by the Grimschaer, leaving it on the larboarde side, & then the foresayd suncken Rock remayneth on the starboard side of you.

Being a little past the foresayde suncken Rock, & Grimschaer, you com then on against the west end of a long small rock, which lyeth farre to the eastwards, towardes Oeland, and lyeth almost even with the water, at some places a little aboue water, & at some places the sea runneth alongst over it, edge then a little up to the northwards, and runne about by the point of that rock; Being past that, you shall meet on the larboard side a low rock, from the which there shooteth off a litle taile to the northwards, upon it standeth a little beacon, saile alongst by it, and being a little past it, then shall the towne lye west southwest from you, let your ancker fall there in five or sixe fathom, there is the right road. If you come to ancker somewhat northerly in the roade, you must be care full to take heede of a suncken rock which lyeth not more then eleven or twelve foote under water.

The markes of this suncken rock are these: When the milles upon the Mulholm are one in the other, with the mil which standeth on the north side without the towne, then you are thwart of the foresayd suncken rock; On both sides of it, as well to the northwards as the southwardes of it, it is deep enough. It is good lying there, almost with all windes, but a north & by east winde is the worst, which bloweth there in open. With shippes that go not deeper then sixe or seven foote, men may come to lye at the bridge before the towne.

You may also saile to the westwards of the Grimschaer: that is, through betwixt the Grimschaer & the land, with shippes that go not deep, but he that shal doe it, must be verie well acquainted there, for there it is all full of Rocks, som aboue & some under water.

From the south end of Oeland, called Souterorden, lyeth off a great daungerous riffe a league & an half into sea, there it is seven & eight fathom deep, when the Chappell upon Southerorden is northwest a great league from you, there it is, tenne & eleven fathom deepe; you may sounde about this riffe in eight or nine fathom, but it is not good to come nearer it, when you can doe otherwise, and can passe it.

The east coast of Oeland is a cleane coast, & lyeth north northeast, & southsouthwest.

Of the Iland Rughen.

For to saile out at the Ielle.

TO the westwards of the Iland Rughen men do sayle up into the Ielle unto Straelsound. For to sail from Straelsound out alongst the Ielle, goe on north, and north, & by west, there lyeth a Middle ground, sometimes there standeth a beacon upon it, and sometimes not, leave that on the larboard side, being past that, sayle to the poynt where the wood standeth upon, so that the town come behind the wood, you shall then see a verie high tree, bring that over the flatteste steeple, & keep it so a while standing, going on still north, and north and by west unto the beacon the Ielle. When as you lose up about by it west, then looke out for two trees, which stand upon the east shoare, somwhat within the land, bring them a ships length without the higheste tree, which standeth upon the shoare, and loose up aboute the beacon, towards the buye. In the mouth of the deepe lye three buyes, which in sayling out you must leaue all on the larboard side, but in sayling in all on the starboard side. It is not deeper in the mouth of the Deepe then sixe & seven foote, and also without, it is farre off shoulde water.

The Iland Rugen hath four poyntes that lye out, under which men may ride at divers places, as Doornbosch, Witmondt, Iasmondt, and the Peert.

Dornbosch.

The poynte of Doorenbosch lyeth from the Ielle north and by west distant two leagues, it is high land with a steepe poynt, men may ride under it for northeast, east, and southeast windes. If you will ancker there, then ancker in three, four, or five fathome, so that the steepe poynte stand northnortheast from you, or that the church stand over the poynt, or ancker where about that it shall please you, or shall be best convenient, it is there al over shallow water & clean sand ground.

From Dornbosch to Brontholme the course is northeast and by east, 17 or 18 leagues, but Dornbosch and Fasterbornes Riffe lye northhorthwest and fouthsoutheast fourteene leagues asundet.

From Dornbosch to Witmondt the course is northeast & by east four leagues. Betwixt them both goeth in a greate Bry, where you may run in alongst by Witmondt, and have rode there in five or six fathom, for southwest, south, and also for an east winde.

Roade under VVitmondt.

If you wil seeke roade under Witmondt for westerlye windes, and runne about by the poynt comming from the westwardes, then come not nearer the poynt, then seven or eight fathom, there shooteth off an uneven shoulde, which you must avoide, being come about the poynt, anker there in twelve, thirteene, or fourteene fathome, that is aboute a league from the shoare, nearer to the shoare in seven, eight or tenne fathome, the ground is not cleane, in twelve fathome you have grosse sand, in thirteene or fourteene fathome soft ground, so that with harde windes you should neede to shoe your ancker, you lye there also landlockt for a west and south winde.

Roade under Iasmondt.

Iasmondt lyeth from Witmondt eastsoutheast distant three leagues.

If you wil anker under Iasmond, for a west or westnorthwest wind, then saile so far about the poynt, that it come to be northnorthwest, or somewhat more northerly from you, when you come about the poynt, you shall see in the southwest or somewhat more westerlye from you, a little thick wood of trees, upon a plain hill, and on each side of that little wood, a little sharpe steeple, and also a great tree, like as if it were a mill without wings, when that tree commeth to be s.w. & by w. from you, anker there in 9, or 10 fathom, there is indifferent ground, according as the grounde is there, by the poynt of the land, it is about 13 fathom deep.

Or bring the north poynt northwest, and the other poynt southwest and by south from you, and anker there in tenne or eleven fathom, there it is good soft ground, but it lasteth not long, so soone as you finde the soft ground you must let fall your ancker, for the ground is there at manie places not cleane, or you must sayle farre about both the poynts, there you lye landlockt for a n. w. and n. winde, in 10, 11 or 12 fathom, good soft ground.

The Peert.

The Peert, which men doe also call the great Buck upon Iasmondt, is a tuffe of trees or 2, & is a poynte that lyeth out with 2 poynts, where is betwixt them both a faire Sand-bay, where is good lying in 4 or 5 fathom clean ground.

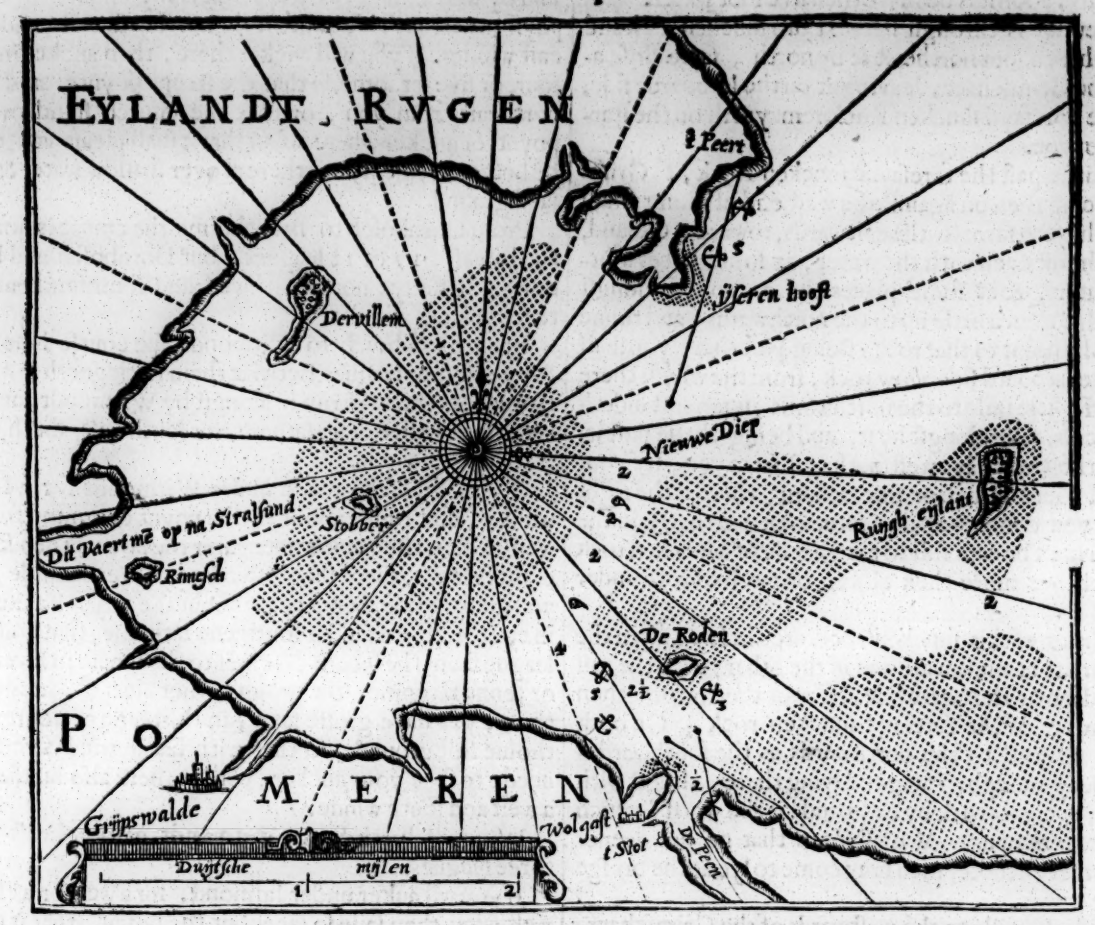
Iasmoundt & the Peert lye southsoutheast & northnorthwest distant three leagues.

To the southwards of the Peert goeth in that New deep, where men doe sayle through to Statyn.

For to sail into the New deep.

About a league south, somewhat westerlie from the Peert lyeth a poynte, called the Ironhead, there lyeth off a little riffe, therefore you must runne alongst somewhat without that point, and being a little past that point, you can see the outermost buye of the New-deepe, wherein lye two buyes in the middest of the deepe, so that you may saile alongst on both sides of the buyes, but with shippes of great draughts you must run close along to the eastwards of the buys, there is the very deepest of the channell. By the outermost buye it is at the shouldest, there is the barre, commonly there is eleven foot water, or a little more then eleven foot & a half, and sometimes also well twelve foot, but in the middest of the mouth of the deep it is commonly still twelve foote, & sometimes more.

The New-Deepe.



Upō the Peert lie three high hommocks, the westermost of them is the greatest, one great round hommock, when you keep that right without the Iron head, and then run on s.s.w. then you cannot sayle amisse, although there were no buyes in the mouth of the Deep.

When you come over the Barre, you shall finde againe four & five fathom depth, being a little over it, you must go on southeast unto the entrance of the Peen, with that course you leave the Iland of the Roeden lying at least two cables lenghts on the larboarde side. It is there all over good anckring.

The Roeden.

If you will sayle into the Peen you shall espie (sailing thus) right out a head at the east side of the Peen, two poyntes, keep the eastermost a handspikes length without the westermost (for to avoid a stonie should, which runneth off from the west poynt of the Peen) untill that you com before the Peen. Upon the east shoar stand two beacons, bring them one in the other, and run so into the Peen, which lyeth in first s. w. but in the comming in, there is no more then sixe foote, or six foot and an half water.

Rode under the Roeden.

If you wil ancker under the Iland the Roeden, you must be mindful of a little riffe, that lyeth off from the Roeden to the southwards, towardes the mayne land, ancker there, either to the westwardes or to the eastwardes of it, according as the winde shall be, in three fathom, or two fathom and a halfe, so shoulde or deepe, as you please, there is the common roade for the ships.

Rough Iland

The Rough Iland lyeth from the Roeden northeast and by east distant about two leagues.

Fort to saile out to the eastwards of the Roedē

About eastnortheast from the Roeden lyeth also a channell into the sea, a little to the southwardes of the Rough Iland, that is good for to runne out with westerly windes, when you can not come out at the New deepe, & also for those that are bound to Dansk, or to the eastwards. From the Rough Iland lyeth off a little riffe to the southwardes, which you must avoid, & runne through betwixte that and the shoulde which runneth from the shoar, thwart of it is the barre or shouldest of this channell not lesse then eleven or twelve foot water, that is a short outlet, being over you shall gette presently deeper water. This channell is Pilots water. Upon the Iland the Roeden dwell Pilots, which doe bring out the shippes there. The Coast of Pomeren lyeth from the New deep to Colsberghen east and west about sixteene or seventeen leagues.

Swin.

Betwixt them both lye yet two channels, the Swinne, & the channell of Camin. The Swin lyeth seven leagues eastwardes from the Hewdeepe, which runneth through with a little River into the Haff or broade water, right over against the river of Stetyn. Camin lyeth five leagues to the eastwardes of the Swin, upon the east end of the Haffe or broad water of Stetyn: that channell goeth through also with a river into the Haff.

Camin.

Four or five leagues without the land, when Iasmondt is west, or thereabout, the Peert westsouthwest, and the Rough Iland southwest & by west from you, there lyeth a banck of seven fathome, upon one place somewhat lesse, and upon an other somewhat more, betwixt it and the land towards Iasmondt it is again thirteen, fourteene, and fifteen fathome deep, but to the eastwardes of the New deepe, alongst by the coaste of Pomeren, it is all shoulde water, of four, five, sixe, and seven fathome, so farre into the sea, that when you can but even see the land of the Swin, there it is not deeper then 7 or 8 fathom, without sight of the land it is 12 and 13 fathom deep.

Banck.

The New-deepe and Colberghen lye e. & by n. and w. & by s. 16 or 17 leagues asunder.

Colbergen

The haven of Colberghen you must sayle into between two heads, untill you come before the Towne. Within in the river, right over against the town, lyeth a Well or Brook which can giue all the countrey thereabour salt, of water which they seeth, and yet the water of the river is fresh as Milk, for it is a little water that commeth out of the land. The coast of Pomerland lyeth from Colbergen to Gashead eastnortheast and westsouthwest aboute 13 leagues, betwixte them both lie two havens more, to wit, Coslyn and Ruwolde.

Coslyn. Ruwolde.

The haven of Coslyn lyeth from Colbergen n.e. & by e. 4 leagues distant. And from Coslyn to Ruwolde the course is northeast & by e. 5 leagues. Into the havē of Ruwold, or the little river, called the Wipper, an indifferent ship may go in: It is from Ruwolde to Garshead northeast & by e. 4 leagues.

The Stolp

The land lyeth from Garshead to the Rosehead east & e. & by n. 19 or 20 leagues, betwixt them lye the havens of Stolp, Liba, and Sernevis.

A little

A little to the eaſtwards of Garſhead lyeth the haven of the Stolp, which is a river ſo called as the towne, which runneth up to the ſame towne, onely for ſmall ſhips, although that there doe indifferent great ſhips lade.

From Garſhead unto Reefcoll it is all a white Strand, & lyeth eaſtnortheaſt from it foure leagues. Reefcoll is a high round hill very good to be knowne, when you come off from Bronthollom. From Reefcoll to Liba it is ſeven leagues.

Liba. Liba lyeth upon a great river, called the Oſſe. From

Sernevis Liba to Sernevis are 5 leagues, betwixt them lye the three Woolſacks, which are three black tuffens of trees, where by this land is very good to be knowne, a little to the eaſtwards of theſe three little hommocks lyeth a long hill which doth ſhew it ſelfe (when you come out of the weſt) on the weſt end divided into three or foure little hommockes. Seven or eight leagues to the eaſtwards of the Woolſackes followeth the high land of Roſe-head, which is very ſteep upon the water ſide. Betwixte the Roſe-head and Reefcoll it is all white ſtrand, and moſt of the land grown with trees.

Sernevis. Sernevis is a little towne lying upon a little off water which with a little river runneth into the ſea, but within, it doth ſpread it ſelfe into a great river. It is from Sernevis to the Roſe-head 4 leagues.

You may ſound aboute the Roſe-head in 15 and 20 fathom, and alſo you may well ancker under the Roſehead, there is better ground then under the Heel. All the ſhrand of Pomer-land is alongſt the ſea ſide aboue all black with trees.

Of the Depths.

In the Farewaie to the northwardes of Bronthollom alongſt to Rye, it is deepe betwixt Oeland & Bronthollem fiue and thirtie, ſixe and thirtie, and eight and thirtie fathome, but comming againſt Oeland, ſo that the ſouth end come to be northweſt & by north, northweſt, and northweſt, and by weſt five or ſixe leagues from you; there you ſhall finde verie uneven grounds. Southeaſt five or ſixe leagues from Southerorden, are grounds of nyne, tenne, twelve and fixteene fathome, in the nyne and tenne fathome ſoft ground, that there remayneth nothing upon the lead, but in the fourteene or fifteene fathom, it is groſſe redde and black ſtonie ſand ground, almoſt like gettes. Nearer againe to Oeland it is againe deeper water, and farther from the land it is alſo deeper, but all uneven ground; the ſouth end of Oeland, being about northnorthweſt from you eight leagues, there it is againe ſometimes twentie, fourteene and alſo well tenne and nyne fathome in the ſhouldeſt deepe, all ſtonie ground, that there remaineth nothing upon the lead, but in twentie and five and twentie fathome groſſe redd and black ſtonie ſand. He that ſayleth with a northerly wind over theſe foreſaide ſhouldes; of 10 eleven, and twelve fathome; & is bound to Bronthollom, let him goe on weſtſouthweſt, for to ſaile clear of Bronthollm, if he reckon to come againſt it by night: the Bleeckſche ſide he may bouldly runne to by the lead in ſeventeene and eighteene fathome. The poynt of Sandthamer runneth farre off flat, as hath been ſaid here before, you may runne aboute by it in ſeven and eight fathome.

Betwixt the Rockes and Oeland, in the farewaie to Gotland it is eight and thirtie, and nine and thirtie fathome deepe, eaſie claye ground.

When Southerorden is northnorthweſt ſomewhat northerly a league from you, there it is thirteene fathom deep.

When the little chappel upon Southerorden is weſtnorthweſt from you two leagues, there it is thirtie fathom deep.

When Southerordē lyeth weſt two greate leagues from you, there it is ſeven and twentie, eight and twentie, and nine and twentie fathom deepe.

Betwixt Faſterborne & Brontholme it is thirtie, and five and thirtie fathom deep, in the fairewaie, but when you beginne to come neare Faſterborne there it is ſhoulder water of fourteene, fifteen and ſixteen fathome.

When you (comming from the weſt) ſaile alongſt by the ſouth ſide of Brontholm eaſtſoutheaſt about a league without the land, and that the eaſt ende of Brontholme is eaſt ſomewhat ſoutherly about two leagues from you, there it is deep ſeven or eight fathome groſſe pale ſand, that laſteth untill that the foreſayd eaſt ende be eaſt, and eaſt and by north aboute a league & a halfe from you, all in one depth, but when it commeth to be eaſt northeaſt from you, it is fifteene fathome deep, ſmall blackiſh ſand ground.

Four or five leagues from Brontholme, when the eaſt end (from which Brewers riffe runneth off) is aboute eaſtnortheaſt or northeaſt & by eaſt, & the north ende aboute north, or north & by eaſt from you, there lyeth a banck of ſeven, eight or nine fathome, & lyeth northweſt and ſoutheaſt more then a great league long, the ſouthermoſt ende lyeth about ſouthweſt from the eaſt ende of Brontholme. He that meeteth with this banck by night, may make ſome geſſing thereby, for to direct his courſe thereafter, whether he be bound eaſtwards towardes Reefcoll, or towards Faſterborne.

About two leagues eaſtſoutheaſt from the a foreſayd eaſt ende of Brontholme (to weete the lowe ſand point, where Brewers-riffe lyeth off, there it is four and twentie and five and twentie fathome deep, ſtonie ground.

About four leagues eaſt ſomewhat northerly, or eaſt and by north from Meun, lyeth a banck of eleven and twelve fathome, which laſteth from thence with a northweſt and by weſt courſe, untill that Meun come to be weſtſouthweſt, or ſouthweſt and by weſt from you, then it is again eighteen, nineteen and twentie fathome deep ſoft ground.

Faſterborne ſhall then be northnorthweſt and Steden weſtnorthweſt from you, going on with that ſame northweſt and by weſt courſe, you ſhall then get by little and little ſhowlder water, to weete, ſixteene and fifteene fathome, and cloſe By Steden fourteene, thirteene, and twelve fathome. Hee that commeth from Witmondt or Iaſmondt towards the Sound, & runneth alongſt four leagues without Meun, runneth alongſt over this foreſaid banck, he that findeth himſelfe by night upon it, hath a good marke for to make his reckoning thereafter.

Betwixt Bronthollom and the coaſt Pomerland, *in the fare-way*, when you can ſee Bronthollom, it is 26 fathom deep, but ſo farre to the ſouthwards that you can ſee the coaſt of Pomerland, there it is 7 and 8 fathom deepe, but without ſight of the land 12 & 13 fathom deepe. Alongſt all the coaſt of Pomerland betwixt the New-deepe and Roſe-head, it is alongſt by the coaſt 22 and 20, & alſo well 25 fathom deep.

Betwixt Colsberghen and Garshead it is all a flat even ſtrand and ground, without any banckes. In the fareway betwixt Brunthollom and Reefcoll, it is 27, and 28 fathome deep, but farre to the northwards of it, it is at leaſt 35 and 38 fathom deep.

Northweſt from Reefcoll 4 or 5 leagues from the land, lyeth a banck of 9, 10 & 11 fathom, when you come from Brunthollom, and Reefcoll commeth to bee ſoutheaſt and by eaſt from you, then you come againſt this bank, and endeth when Reefcoll is ſouth and by eaſt from you.

From this foreſayd banck towards Brunthollom, it is 25, 30 and 36 fathom deepe, ſoft clay ground, but towards Reefcoll it is ſhowlder.

If you caſt the lead often, ſailing alongſt that coaſt, you ſhall finde more bankes.

You may boldly ſaile alongſt this coaſt by night, or darke weather in 8, 10 or 12 fathom off from Reefcoll untill about the Roſehead. Thwart of the Roſe-head it is farre flat, and ground as riffe ground. When you come paſt or about Roſe-head, it is very deep.

When the Roſe-head is ſouthſouthweſt from you about a league, there it is 30 fathom deepe, but very uneven and full of bancks, and the ground white groſſe ſand.

Roſe-head being ſoutheaſt from you, it is 28 fathome deepe, with red ſtony ground, almoſt like as af it were riffe ſand.

Roſe-head being weſt from you, there it is 16 fathom deep, and white ſand ground.

Courses and Distances.

From the poynt of Sandthamer to Somerhaven the course is north & by east 1 league
From Somerhaven to Ahuys north 5 leagues.
From Ahuys to Hanno e. n. e. 2 leagues
From Hanno to the rocks the course is east and by south 11 or 12 leagues.
From the rocks to the Outlyers north & by east 1 league.
From the Outlyers to Christianopell northnortheast 7 lea.
From the Rockes to Calmer n. n. e. 15 or 16 leagues.
From the Rocks to Southerorden the south end of Oeland east 8 leagues.
From Santhamer to the rocks eastnortheast somewhat easterly 17 or 18 leagues.
From the north poynt of Brontholm to Ahuys north & by west somwhat northerly 10 leagues.
From the north poynt of Brontholm to Hanno n. somewhat westerly 12 leagues.
From the north poynte of Bronthollom to the Rocks n. e. & by n. 16 leagues.
From the north poynte of Bronthollom to Souherorden northeast a little easterly 21 leagues.
From the south end or east ende of Bronthollom to the rocks northnortheast 19 leagues.
From the east ende of Bronthollom to Southerorden n. east somewhat northerly 24 leagues.
From Southerorden to Reefcol south and by east 24 leag.
From Southerorden to Rosehead s.e. 33 leagues.
From Southerorden to Quinsbrough Deepe southeast and by east, and s. s. e. 48 leagues.
From Southerorden to Dermemel east & by s. & e. s. east 48 leagues.
From Southerorden to Sevenberghen east and by south 48 leagues.
From Southerorden to Derwinda e. & by n. 57 leag.
From Southerorden to the south ende of Gotland east n.e. 23 or 24 leagues.
From Southerorden to the Great Karell northeast 27 leag.
From Vasterborne to Elburgh east and by north 4 leagues.
From Elburgh to Wtstee east 8 leagues.
From Wtstee to Goesbeer e. n. e. 3 leagues.
From Goesbeer to Sandthamer n. e. 1 league.
From Vasterborne, or from the riffe to Brontholme east 20 leagues.
From Vasterborne to the northwards of Brontholme east & by north 20 leagues.
But to the southwards of Brontholm east, & east & by south 23 leagues.
From Wtstee to the north poynt of Brontholm southeast and by e. 8 leagues.
From Meun to Bronthollom east and east and by north 21 leagues.
From Steden to the north ends of Bronthollom east and east and by north 24 leagues.
From Vasterborne to Whitmond s. e. 19 leag.
From Vasterborne to Dornbosh southsoutheast 13 or 14 leagues.
From Meun to Whitmont s. e. & by s. 12 or 13 leagues.
From Meun to Dorneboſh southeast & by south 9 leagues.
From the Iell to the poynt of Dornbosh north and by west 2 leagues.
From Dornbosh to Whitmont the course is northeast 4 lea.
From Witmondt to Iasmont e. s. e. 3 leagues.
From Iasmont to the Peert s. s. e. 3 leagues.
From Brontholme northeast, somewhat easterlie 19 leag.
From Witmondt to the north ende of Bronthollom northeast & by east 14 leagues.
To the south ende east and by north and eastnortheast 13 leagues.
From Iasmondt to the south ende of Brontholm northeast & by east 13 leagues.
Frō the Peert to the south end of Brontholm northnortheast 14 leagues.
From Iasmondt to Camyn eastsoutheast somwhat southerly 19 leagues.
From the New deepe to Colbergen the course is east & by north 16 or 17 leagues.
From Comyn to Colberghen east northeast 4 leagues.
From Colberghen to Caslyn northeast & by e. 4 leagues.
From Coslyn to Ruwolde n.e. & by e. 5 leagues.
From Ruwolde to Garshead northeast and by east four lea.
From Garshead to Reefcoll e. n. e. 4 leagues.
From Reefcoll to Lyba e. & by n. 7 leagues.
From Lyba to Sernevis e. 5 leagues.
From Sernevis to the Rose-head the course is east 4 leagues.
From Colsberghen to Garshead east northeast 13 leagues.
From Reefcoll to Rose-head the course east 16 leagues.
From the south end of Brunthollom to the Swin south and by west 13 leagues.
From the south end of Brunthollom to Colbergen s. e. and by south 16 leagues.
From the southend of Brunthollom to Reefcoll the course is east and by south 24 leagues.
From the south end of Brunthollom to the Eartholloms n. & by east 4 great leagues.
From the north end of Brunthollom, or from the Eartholloms to Rosehead the course is east, and east and by south 40 leagues.

How most of all the chiefest poynts and places of the east sea do lye distant from Bronthollom.

From Brunthollom to Der Memell east somwhat northerly 65 or 66 leagues.
From Brunthollom to Der Lyba east and by n. somewhat northerly 67 or 68 leagues.
From Brunthollom to Derwinda e. n. e. 80 leagues.
From Brunthollom to Houbrough, or the southend of Gotteland n. e. & by e. 50 leagues.
From the north end of Brunthollom to Southerorden the southend of Oeland n. e. somwhat easterly 25 leagues.
From the southend of Bruntholm to Southerorden n. e. somwhat northerly 27 leagues
From Brunthollom to the Rocks or out rocks northnortheast 19 leagues.
From Brunthollom to Hanno the course is north twelve leagues.
From the north end of Bronthollom to Sandhamer n. n. w. 5 leagues.
From the north end of Brunthollom to the poynt of Goesbeer n. w. & by n. 5 leagues.
From the north point of Brunthollom to Wtstede north w. 8 leagues.

How these Lands doe shew themselves at sea.

The south end of Oeland sheweth thus, when it is thwart off from you.

Brontholme sheweth it selfe thus when you come from the west.

The Eertholmes, being n. n.e. from you, shew themselves thus.

The Eertholmes, being e. from you, shew themselves thus,

In this forme ariseth the Eertholmes, being north from you.

This

Les Costes Marines de Courlant et Pruüssen de: puis Rygshooft jusques à Derwinda

Pautzke

Rygshooft

Pautzker Wyck

Dantzigk

Melvinghe

Fr auwenburgh

Brutnsh ergen

Koningsbergen

Coersch Haff

Der Memel

Coers W. Haff

PRVSSEN

De Zeecusten van Courlant, en Pruyssen Tussen Derwinde en Rygshooft Nieuwlyx Beschreven by

Iacob Aersz. Colom.

Groote Karel

Cleine Karel

Neuburch

Oostpoort

Ronneby

Ronneby Hamn

Ronneby Ström

Ronneby Ström

Ronneby Ström

Thus ſhewe

Witmo

Thus

The Roſe

Thu

Roade under the Heele.

Danske Deep.

Quins-brough. deep.

Thus ſheweth Witmond, when you ſaile alongſt by it, being three leagues off from it.

Thus ſheweth Iaſmond, when you ſaile alongſt by it, being three leagues from the land.

Thus ſhewe themſelves Witmondt and Dorneboſch, with the land betwixt them both, when it is about ſouthſouthweſt from you, ſo farre that you may but even ſe it from belowe.

Thus ſheweth the land betwixt Reefcoll and the Roſe-head, when you ſaile alongſt by it three leagues without the land.

Thus ſheweth the land betwixt Colbergen and the Stolp, when you ſaile alongſt by it about two leagues without the land.

The Second Demonſtration,

Where in

The ſeacoaſtes betweene Rygs-head and the VVinda are ſet forth.

FRom the Roof-head to the Heele, the courſe is ſoutheaſt eight or nine leagues diſtant. When you come neere the Heele, you are almoſt ground off in thirtie fathom. On the coaſt of the Heele cloſe by the land, it is 24 and alſo 30 fathom deep.

Roade under the Heele. Under the heele you may ancker in 12 and 20 fathom cloſe by the land, the ground there goeth off very much. If you be a little off from the land, then you are ground off, nort very farre without the land you have no ground in 40 fathom. A league to the northwards of the Heele there runneth off a flat from the land, where of you muſt take heed, when you will go to ancker under the Heele, you may ancker on both ſides of the Heele, but on the inner ſide it is ſoft ground.

From the Heele to Danske before the Wiſſell, the courſe is ſouth and by weſt 5 leagues. If you will anker before the Wiſſell, then ancker to the weſtwards of the Cheſts, or the Weſter-head in 10 or 12 fathom.

Danske Deep. But for to ſaile into the Wiſſel, or the Danske Deep, you muſt loock for the two maſts with barrels upon them, which ſtandeth upon the Cheſts, or the Weſter-head, bring one in the other, and ſaile in right with them, in betwixt the Cheſts, but when you are within Termunde, you muſt chooſe the eaſter ſhore, for the Weſt shore is flat, when you come before Boatſmans flat, you muſt chooſe the ſide of the Green-shore, and make there faſt with foure hawſers or cables.

Quins-brough. deep. The Quinsbrough deepe lyeth from the Wiſſell, or the Cheſts of Danske eaſtnortheaſt, and northeaſt, and by eaſt 13 leagues. From the Roſe-head eaſt and by ſouth 17 or 18 leagues, and from the Heele eaſt and weſt 13 leagues.

From the Wiſſell to the Quinsbrough deep & al alongſt to the northwards of it, is altogether a faire white ſandy ſtrand, upon both ſides of the deep ſtand ſome withered trees, to ſee to as if they were burnt, but upon the ſouth ſide ſtand two Capes, or beakons. If you wil ſaile in there, bring the capes one in the other, when you come in 10 or 8 fathom, and ſaile in ſo right with them, and ſo you shall run right with the buyes, which lye on both ſides of the Deepe to 8 or 10 in number, to with, on each ſide foure or five, ſaile in betwixt them, untill you come within in the Kettell. There is no certainly to be written of the lying in of this channel, as alſo of the Danske deep, whereunto men might truſt, for by reaſon of the ſcouring of the Freshuts, and with great ſtreaming of the Ice, they doe change oftentimes, & ſometimes in short time, but the Lords of the land there have very great care to give charge that they be alwayes well ſeth wit buyes and beakons.

For to anker in the road without the deep, then anckor ſo that the poynt of Lockſteed lie about north and by eaſt from you, there it is eight, nyne and then fathom deep.

Within the Deep in the Kettell, men do lie to tarrie for the wind in three fathome and three fathom and a halfe.

For to ſaile up the Haff go out of the ketel about eaſt untill you come againſt the Heert, and ſoutheaſt over it, and then alongſt the Haff amidſt the channell unto the Haverſtrome, the courſe is moſt eaſt. Being over the Heert edge ſomewhat to the ſouth shoare for to avoyd that riff which lyeth off from the north shoare about a third part into the Haffe, to wit, from the point by eaſt Fiſhouſes there lyeth a little buye upon it, and come no neerer it then 12 or 13 foot. The right fareway is to the ſouthwards of it 14 and 15 foote ſoft ground, untill about Brandenburgh, from thence further it is by little and little showlder 12, 11, and 10 foot upon the Haverſtraw. When you get the ſteeple of Quinsbrough in ſight, then you ſhall ſee alſo by it a round black little wood; keep the ſteeple on the north or eaſt ſide of that little wood, untill that you be paſt Brandenburgh, then let the ſteeple come a ships length to the eaſtward of the little wood of trees, & ſaile ſo right with it, till you com by the buyes or little trees of the Haverſtraw, there you muſt run through amidſt the channell betwixt them, untill you come into the Pregell which lyeth up northeaſt unto the towne.

From der Pillo to quinsbrough are about 8 leagues, but to Melven it is about 9 leagues, you muſt alſo ſaile up there amidſt the channell about ſouthweſt, but the poynt over againſt the Pillo, where the caſtle Terbaly ſtandeth, you muſt avoid ſomewhat, which runneth far off flat. Melven.

Foure or five leagues north and north and by weſt from the Quinsbrough Deep lyeth the poynt of Bruſteroort, and betwixt them both Loocſteed, wherupon ſtandeth a Caſtle with a Church, not farre one from the other, and alſo two high hommocks or hills, and the land there abouts is all full of trees.

From Bruſteroort to the Deepe of Der Memell, the courſe is northnortheaſt 16 or 17 leagues. It is there betwixt them both a faire ſtrand, and the land lyeth in a great bay. The Deep of Der Memell lyeth in northeaſt, and n. e. and by eaſt, and is two fathom deep, within it you come into a great Haffe: you may runne to the weſtwards about the poynt, and ancker there where you will. Der Memel.

From Der Memell to Heyligena the coaſt lyeth north & by eaſt ſomewhat eaſterly 4 leagues.

From Heyligena to the poynt of Sevenbergen, north & by eaſt ſomewhat eaſterly 5 leagues, that is with hommocks and hilly land.

Foure or five leagues north and by eaſt from Sevenber- Terlyba.

ghen

ghen lyeth Terlyba. There goeth into the land a little river, but there can go in no ſhippes, there is no more then 6 foot water. On the north ſide of the river ſtandeth a Gentlemans houſe or Caſtle, with a turret upon the midſt of it, the north end of the houſe is covered with boards, and the ſouth end with red tyles, to the ſouthwards or the eaſtwards of it ſtand alſo ſome houſes, covered alſo with tyles, in betwixt two woods to ſee to. If you will ancker in the road of Terlyba, then anker a little to the ſouthwards of the village ſo that the foreſaid Gentlemans houſe with the turreth doe ſtand eaſt and by north from you in foure fathom and a half, and 5 fathome leſſe two foot, there is the beſt road and ground that is thereabouts. When you come out of the ſea, and fall with the land to the eaſtwards or to the nortwards of Terlyba, you ſhall ſee within the land a black wood, and the houſes in a ragged valley of Sand-hills.

From Terlyba to Derwinda the courſe is nortnortheaſt 16 or 17 leagues, betwixt them both the land lyeth in a bight, ſo that the coaſt alongſt by the shore lyeth not ſo right, eſpecially 4 or 5 leagues by ſouth Derwinda, there it falleth away into great bight, which men do call Sackerwyke, and alſo with more ſmaller bights and bayes towards Terlyba.

Sackerwyke. Steenoort. About 4 leagues to the northwardes of Terliba lyeth a poynt called Stickeroort or Steenoort, thwart there of it is very flat, ſo that a good wayes from the land, it is not deeper then nine, tenne, and twelve fathome, all ſtony uneven ground, of this poynte you muſt take good heed, and not come too neere it. Anno 1599. in the Spring a man of Hoorn ſayled ſomewhat neere to this showld, and came on ground upon an unknowne rock, and loſt his ship. To the northwardes of it, towardes Derwinda, thwart of Sackerwyke it is all cleane ground, and farre flat, at many places a good wayes from the land not deeper then ſixe and ſeven fathom clean ſandy ground, good for to anker in, when you lye by there with a northeaſt winde, and can get nothing with turning to windwards. But if you keepe under ſaile, you may in turning to windwardes come neere the shore every where without feare in 4 or 5 fathom.

For to know Coerland For to know this coaſte of Coerland, then remember theſe places here under written.

Bakeovens At Derwinda ſtandeth a Caſtle with three Towers, which is covered above with red tyles, and under it is white, about a league to the ſoutwardes of Derwinda, lyeth the Bakeovens, which is next to Domeſnes, the beſt land to be known of Coerland, it ariſeth firſt when you beginne to ſee the land, in a white Sandhill, the top whereof is full of trees, but when you com ſe neer the shore, that you can ſee the other land alſo, then there ariſeth more land with hommockes, ſo that then it is not ſo good to be known.

About foure leagues to the ſouthwardes of it in Sackerwyke lyeth yet a hommock or hil ful of trees with ſome little hommockes to the eaſtwards of it, when you are thwart of Derwinda, you may even ſee it half wayes up to the top, but not well from below. This hommocke is called by ſome Duke Dalves Caſtle, and lyeth moſt alone: the land, as well to the ſouthwards as to the northwards of it, is moſt al even and plain land.

Duke de Alves Caſtle.

About ſix leagues to the ſouthwards of the foreſaid hommock, and 5 or 4 leagues and an half to the northwards of Ter Lyba, lye alſo two high hommocks cloſe one by the other, the land to the ſouthwardes of them towardes Ter Lyba, is to ſee to farre off (when you are thwart of theſe two hommocks, or ſomewhat to the northwards of them) as if it were all broken land, thwart of this about 5 leagues from the land, or when you can but even ſee the land from below, it is 30 fathom deep.

Bank by Derwinda. When you begin to come about Derwinda within 2 or 3 leagues of the land, there lyeth a banck of 12, 13, and 14 fathom: ſome ſay that weſt and by north from Derwinda there ſhould be no more upon that banck then 5 or 6 fathom water, it it about a halfe league broad, betwixt the bank and the land a league without the shore, it is againe 20 and 24 fathom deep.

Road before Derwinda. If you will ancker before Derwinda, then bring that foreſaid Caſtle about e.ſ.e. from you, then it cometh almoſt behind the high land, & anker in 5 fathom from the shore, there is the beſt rode.

Of the Depths and groundes about theſe coaſtes.

Betwixt the Heele and the Roſe-head, but neereſt the Heele, there it is 33 fathom deepe, and the ground is there white ſand.

At the Heele in the roade it is 25 fathom deep, the ground black ſand, and going off to 30 and 40 fathom.

Betwixt the Heele and Quinsbrough it is very deepe, comming neere the Heele it is ſteepe, but towards Quinsbrough and the Nerung it goeth up plainly flat.

How theſe lands doe lye one from the other, and from other lands.

From the Roſe-head to Axternes ſoutheaſt 4 leagues.
From Axternes to Vernorden ſoutheaſt 1 league.
From Vernorden to the Heele ſoutſoutheaſt 1 league.
From the Heele to Danske ſouth & by weſt and ſouthſouth weſt 5 leagues.
From the Cheſts or Wiſſell of Danske to the Deepe of Quinsbrough eaſtnortheaſt 13 leagues.
From the Deep of Quinsbrough to the poynt of Bruſteroort northweſt and by weſt 4 or 5 leagues.
From Bruſteroort to the Deep of Der Memell northeaſt & by north 16 or 17 leagues.
From the Roſe-head to Quinsbrough deepe ſoutheaſt and by eaſt 17 leagues.
From the Heele to Quinsbrough deepe ſ.e. and by e. ſomewhat ſoutherly 13 leagues.
From the Rooſehead to Der Memell eaſtnortheaſt ſomewhat eaſterly 29 leagues.
From the Roſe-head to Sevenbergen eaſtnortheaſt 33 leag.
From the Rooſe-head to Derwinda northeaſt 53 leag.
From the Rooſe-head to Dageroort northeaſt & by north 80 leagues.
From the Rooſe-head to eaſtergore, north and by eaſt 45 leagues.
Frō the Roſe-head to Houbrough the ſouth end of Goteland north 34 leagues.
From the Roſe-head to the ſouth end of Oeland northweſt 33 leagues.
From the Rooſe-head to Hannoe the courſe is n. w. and by Weſt 38 or 40 leagues.
From the Quinsbrough Deep to Houbrough the ſouth end of Gotland northnorthweſt 48 leagues.
From Quinsbrough deepe to Southernorden, the ſouth end of Oeland, northweſt ſomwhat weſterly 50 leagues
From Der Memell to Houbrough weſtnorthweſt and weſt and by north 37 leagues.
From Der Memell to Heylighena north and by eaſt 4 leag.
From Heylighena to the poynt of Sevenberghen north 5 leagues.
From Sevenberghen to Der Lyba north and by eaſt 4 or 5 leagues.
From Der Lyba to Derwinda northnortheaſt 16 or 17 leag.
From Der Memel to Bruſteroort ſouthſouthweſt 16 or 17 leagues.
From Der Memell to Danske ſouthweſt and ſouthweſt & by weſt 32 leagues.
From Der Memell to the Roſe-head weſtſouthweſt 29 lea.
From Der Memell to the Eartholloms, or the north end of Bronthollom, weſt and weſt and by ſouth 64 or 65 leag.
From Der Memel to Houbrough northweſt ſomwhat weſterly 37 leagues.
From Sevenberghen to the Roſe-head ſouthweſt and by weſt 33 leagues.
From Sevenberghen to Southerorden weſt ſomwhat northerly 48 leagues.
From Derwinda to the Roſe-head ſouthweſt 53 leagues.
From Derwinda to Brunthollom weſtſouthweſt 80 leagues.

From

Eslandt van
Dagerort
Otges holm
W. Grasgrondt
Grasholm
Oostgrasgrondt
Middelgrondt
Ronde dert
Skiollegrondt
Reecke
OESEL
Abberburgh
Arensborgh
Abrick
Pater noster
Domesnes
Pohuberg
Runon
Sorgh holm
Mann
Kyn
Ryga
Revelste
Surr
De Wolf
Kockschar
Klein Wranger
Revel
S. Brigitha Cloester
Kock
Brocklom
Parnout
Lemsaeb oste
Sales
Peldre fluter Spits
De Greff
Duinemat
Duina fl.
Dispenas
Elsbourgh
Pelsbourgh
Tetkers
Vanat
Esura
Hessinga
Lemsa
't gat van Luys
Lums
Lums
Lums

Duitsche Mylen 15 in een Graedt — Lieues d'Allemaigne 15 en un degre

Spaensche Mylen 17½ in een Graedt — Lieues d'Espaigne 17½ en un degre

Enghelsche en Franſche Mylen 20 in een Graedt — Lieues Angl. et Franc. 20 en un degre

Pascaerte vande

ZEECVSTE van LYFLANT en Oost Vinlandt als mede DAGEROORT en den Rijgseninham

Nieulijcx Beschreven.

Tot Amsterdam bij Jacob Aertsz Colom.

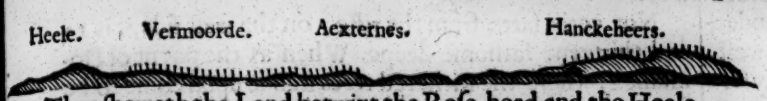
Elsenbos
Borgo
Parnu
Pernmal
Peltingh
Peltingsgat
Peltingsscharen
Putsgare
Eselsscharen
Hylandt met de stengh
Hogge landt
Sommers
Slimme gronden
Narva
Rohel
Wyborgh
Narva

22

Heele.
D
Sacker
B
Back
H

From Derwinda to Houbrough weſt ſomewhat ſoutherly 37 leagues.
From Derwinda to Eaſtergore the courſe is weſt and by n. 29 leagues.
From Derwinda to the Godtſche ſand northweſt and n. w. and by north 31 or 32 leagues.
From Derwinda to Dageroort north 33 leagues.

How theſe Lands doe ſhew themſelues at ſea.

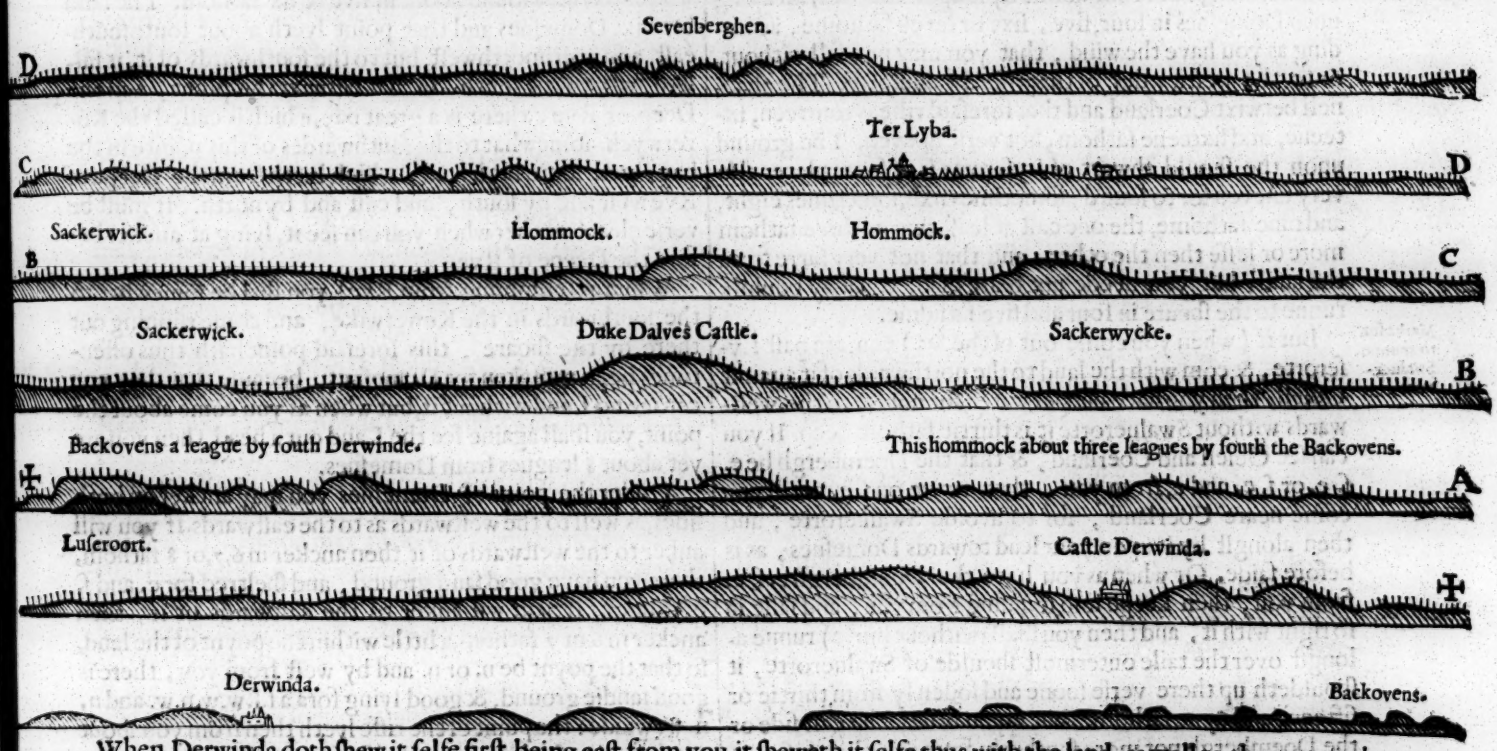


Thus ſheweth the Land betwixt the Roſe-head and the Heele.

Thus ſheweth the land betwixt Quinsbrough deep and Brufteroort.

Thus ſheweth it ſelfe the coaſt of Coerland about Sevenberghen, when you ſaile alongſt by it a league without the Land.

The coaſt of Coerland from Sevenberghen alongſt by Derwinda unto Luſeroert ſheweth, as is portrayed in theſe ſix figures following, the like markes belong one to the other, as A A, B B, C C, D D, &c.



When Derwinda doth ſhew it ſelfe firſt, being eaſt from you, it ſheweth it ſelfe thus with the land, as well to the nortwards as to the ſouthwards, but when the Caſtle doth begin to come eaſt ſoutheaſt from you, then it goeth behinde the land, that you cannot ſee it.

The third Demonſtration,

Where in

Are deſcribed the ſea-coaſtes betwixt the VVinda and the utmoſt of the Eaſt-ſea.

THE lying of Derwinda, and how men ſhall know it, is here before declared.

From Derwinda to Lyſerorte, the coaſt lyeth northeaſt & by north foure leagues: and from Lyſerorte to Domeſnes eaſt northeaſt 12 or 13 leagues. When you are thwart of Lyſerorte, you can perceive no poynt, it ſeemeth to be all an even right coaſt from Derwinda to Domeſnes, but comming frō Derwinda or Domeſnes, and being a league or two to the eaſtwardes or to the weſtwards of it, you can ſee well that is it a blunt poynt, lying out. Thwart of Lyſerorte runneth off a great uneven ſhowlde, at leaſt two leagues into ſea, but you need not feare of it, you may runne over it in four, five, or ſix fathome by the lead, like as alſo alongſt all the coaſt of Coerland from Derwinda, untill about Domeſnes.

To the weſtwards of Lyſerort the land hath a litle bight, there you may ancker for northeaſt, e.n.e. and eaſt windes: when it bloweth hard, & that you can do no good with turning to windwards, you muſt bring the poyut of Lyſerorte e.n.e. from you in ſeven fathom, there is clean ſand-ground and good lying.

The land betwixt Domeſnes and Derwinda is verie good to be known. At the poynt of Derwinda it is high, and goet ſloping down by little & little to the eaſtwards unto Lyſerort: Likewiſe 3 or 4 leagues by weſt Domeſnes lyeth a high blue hill, called the Doembergh, which is ſteep on the eaſt ſide, and goeth by little and little ſloping downe to

the west wardes unto neare Lyserorte, so that there two high double blue lands do go down into a valley one against the other, the low land betwixt both is Lyserorte. The poynt of Domesnes it self is low sandie land, & lyeth out about 3 leagues to the eastwardes of the foresaid Doemberg: but all that land is al together full of trees.

Lyserorte

Riffe of Oesel. Swaluerorte.

The south end of Oesel lyeth from the poynt of Domesnes northwest and by west about foure leagues asunder, there runneth off a great Riffe, about south and by west, and southsouthwest into sea, towardes the showlde Lyserorte, called Swaluerorte, that is a daungerous riffe, at least three leagues long, verie hard and uneven, at some places towards Oesell it lyeth drye aboue water, and at som other places it is two, two and an half & three fathome deep. To the westwards of that riffe lie also manie uneven Dwaelgrounds a good waies off from the land, which lye alongst the coast of Oesel to the northwards, which are at som places not deeper then two, three and four fathome.

If you will goe to Rye, and comming out of the sea doe fal wit the land about Derwinda, then leaue not the coast of Coerland, but runne about by it upon the lead, all along unto Domesnes in four, five, sixe or seven fathome, according as you have the wind, that you may not fall without, or to the westwardes of that riffe Swaluerorte. The channell betwixt Coerland and that foresaid riffe is fourteen, fifteene, and sixteene fathom, but verie uneven. The ground upon the should thwart of Lyserorte is at some places also very uneven for to sound, sometimes sixe, sometimes eight, and nine fathome, the one cast at least two or three fathom more or lesse then the other, and that not very farre from the land, but you neede not feare of it, you may bouldly runne to the shoare in four and five fathome.

Marks for to shunne Swaluerorte.

But if (when you come out of the sea) you are past Lyserorte, & com with the land to the northwards of it against Oesell, then you have deeper water, for not far to the westwards without Swaluerorte it is thirtie fathom deep. If you can see Oesell and Coerland, & that the Doembergh be e. s. e. or s. e. and e, from you, then runne on s. e. untill you come neare Coerland, for to avoide Swaluerorte, and then alongst by it upon your lead towards Domesnes, as is before saide. Or when as you have the Doembergh e. s. e. from you, then keepe it so standing from you, and saile in so right with it, and then you shall (without hurte) runne alongst over the taile outermost shoulde of Swaluerorte, it shouldeth up there verie soone and soden ly from thirtie or fifteene and nyne fathome, but if you bringe the east side or the Doembergh not more southerly from you then e. s. e. & s. e. & by e. then you shall not meete with any danger of the Dwaelgrounds, nor of Swaluerorte, you shall thus saile alongst at least three leagues over the Dwaelgrounds and Swalverorte, over verie uneven grounds, the one cast at least twelve, the other nine, and also wel seven, and sixe fathome, but goe on your course without feare, when as the Inner side, or east side of the south end of Oesel cometh to be north, and north and by east from you, then you are over the riffe, & within al the foule groundes that might hurt you, when as that you gette then thirteene or 14 fathome, then saile bouldly without fear towards Domesnes.

If it should happen, that with a northwest wind, you should fal with the land to the northwards of Derwinda or Lyserorte, & should fear to come neere the coaste of Coerland, then keepe not further off to sea, then that the east poynte of Doembergh be eastsoutheast from you, when that you bring the east side of the south poynte of Oesell n. n. e. from you, then you shal runne alongh over Swaluerorte in seven fathome. Betwixt Oesell and Coerland it is sixteen and seventeene fathom deepe. When as Domesnes is southeast & by east, & the south poynt of Oesel northwest & by north from you, and thatt you are a like neare to them both there it is eighteene fathome deepe.

Riffe of Domesn.

From the poynt of Domesnes runneth off also a riffe n. east and by north, or a little more northerly a league & half into the sea, which is on the east side verie steepe, but on the west side somewhat flatter.

When you com frō out of the west, & are bound to Rye you may runne about by it upon your lead, in five, sixe, seven, eight, nine, and tenne fathom, so neare as you will, but according as the winde & weather shall be. I know of some that have sounded about it in foure, and foure fathome and a half: but he that will runne so somewhet neare about it must be verie carefull in using of his leade, and not let it rest.

Not verie farre from the riffe, on the west side, it is 12 and thirteene fathome deepe. When as the poynt of Domesnes, where the withered trees stande upon come to be southsouthwest from you, then you com on against the west side of the riffe, when that poynt is southwest and by south from you, then you are right thwart of the poynt, but when it is southwest, and southwest and by west from you, then you are about the riffe, and then you may bouldly goe on southeast towardes Rye. Domesnes and the Deep of Rye lye southeast somewhat southerly, and northwest somewhat northerly, one and twentie leagues distant.

About eight leagues to the eastwardes or to the southwardes of Domesnes runneth off another riffe from a point which you may sound about in five & six fathom. The land betwixt Domesnes and that point lyeth about southsoutheast, and northnorthwest, but to the southwards of it, it falleth away to the south, so that betwixt this point, and the Deep of Rye, there is a great bay, which is called the Koverwyck: somewhat to the southwardes of this pointe in the bay, lyeth some high land, which lyeth from the Deepe of Rye west and by south, and east and by north. It must be verie cleare wether when you can see it, lying at ancker before the Deepe of Rye.

Kower wyke.

When as (comming from Rye) you shal be somewhat to the southwards in the Kowerwike, and come running out there by the shoare, this foresaid point hath thus oftentimes been mistaken for Domesnes, because that then you can see no Land without it, but when as you come about the point, you shall againe see the Land out a head, then you are yet about 8 leagues from Domesnes.

Under the point of Domesnes you may ancker on both sides, as well to the westwards as to the eastwards. If you will anker to the westwards of it, then ancker in 6, 7, or 8 fathom, there you have good sand ground, and sheltred for e. and s. e. windes. If you wil anker to the eastwards of it, then ancker in 6 or 7 fathom, a little within the poynt of the land, so that the poynt be n. or n. and by west from you, there is good sandie ground, & good lying for a s. s. w. w. n. w. and n. n. w. winde: the point of the riffe lyeth then from you about northnortheast a league and half. If you will ancker further from the shoare, so that the poynte of Domesnes be n. w. or northwest & by north from you, there it is eighteen and twentie fathom deep & soft ground.

Rode under Domesnes.

If that comming off from Rye against the riff of Domesnes, you wil sayl about it, then you must runne farre enough about without it, or if you will take it sommewhat near, you must be exceeding carefull in using your lead. It is (as hath bene sayd) verie steepe on the east side, with a northwest waye, (which runneth thwart into the riffe) you shall have the one cast twelve, nine, or eight, and the next cast four, or three fathome, if you fall within the poynt of the riffe. But if you have been at ancker under Domesnes, and set sayle from thence, and will sayle about the riffe, then you may the better runne about it by your lead. Goe from thence n. n. e. and n. e. and by north, that runnet most alongst by the riffe. When the poynt of Nesse commeth about west from you, then it will be by litle and litle somewhat shoulder, you must not spare your lead, but must sound often. With a n. west course come not nearer it then in 9, 10, or 12 fathom. When the poynt of Nes cometh to be southwest from you may sound about it so in five, sixe or seven fathom, then you then com to the east side of the riffe, when that is southwest & by south from you, then you are right thwart of the point of the riffe, but when it is s. s. w. from you, then you are about the riffe, go then westsouthwest, or more southerly towardes Coerland, and runne alongst by it, in five, sixe, or seven fathom, (according as the winde shall be) toward Lyseroort.

If

If you sayle from Rye with an east or northeast winde, and shall sayle by night about the rif, then set your course so, that you be sure you run farre enough alongst to the northwards, or without the Riffe, and keepe that course untill that you come neare the grounds of Ambrook or Oesel in fifteen or sixteen fathom, then you shall be without doubt past the riffe, then goe on a while southwest, untill that you reckon the poynte of Domesnes to be southeast, or somewhat more easterly from you, then edge up to the coaste of Coerland by your lead, and runne alongst by it, in four, five, sixe or seven fathome, as hath been before said.

Round. East and by north eight leagues from Domesnes lyeth the Iland Round: you may runne round about it by your lead, in sixe or seven fathom. All alongst the southwest side it is all foule and sharp rockie ground, therefore com not nearer the shoare there, then in six fathome. Southsoutheast aboute a halfe league from the south poynt lyeth a little plate, where upon it is not deeper then six foot, there hath once a man beaten off his ruther. It lyeth betwixt the seven and eight fathome depth, for to avoide that, take thereabouts the sounding of the shoare in five or sixe fathome, and then you run through betwixt it and the shoare, or els, if you keepe in eight or nyne fathome, then you runne aboute without it.

Kower wyke. Road under Round. If you will ancker under Round for a southsouthwest, southwest or westsouthwest winde: then runne about the southeast poynt, untill you come to the east side, there is a little bay, where stand a few houses with a chappell, which you can see when you come somewhat neare to the shoare, ancker thwart of it in five fathome, so that the chappel doe stand s.west from you, there is the best roade under Round, being clean sandie ground, but when it bloweth hard the sea commeth rouling in. At other places it is not verie cleane.

The Deep of the river of Rye. The farewaie betwixt Round and Domesnes is two and twentie and three and twentie fathom deepe, and betwixt Round and Duynemondt three and twentie and four and twentie fathom.

From Round to the Deepe of Rye, it is southsoutheast, & southeast and by south 16 leagues. Before the Deepe of the river Duyn you may ancker in tenne fathome, either to the southwards or the northwardes of it, where you please.

The Deep of the river of Rye is Pilots water, aswell in sayling up, as sayling off. How men shall saile there in or out it is not possible to describe, so that men might relye upon it for by reason of the countinuall scowring of the stream, and especially by some extraordinarie greate freshuts, and strong drifts of yce, the depths and showldes do there often shift and change, where of everie one that is bound thither may be mindfull of.

Rode under Domesnes. From the Deepe of Rye to Parno the course is north and by east one and twentie leagues, betwixt them both, aboute twelve leagues from Rye lyeth a little towne called Lemsael. Lemsael or Sales, there goeth in a little deepe of eight foot water. Before that Deepe lyeth a banck, which you may saile about on both sides, and come within it, there it is Kinne. three fathom deep. The Iland Kin lyeth from Sales northwest five great leagues: from Round east northeast nyne leagues, and from the Deepe of Rye north, aboute 14 leagues. It is a little low Iland, about 3 leagues long, & hath round about it most foule ground. Betwixt Kyn & the coast of Lyfland it is four leagues broade, and the right deep betwixt them both is eight and nyne fathome deepe.

Ambrook. Northwest and by west eight leagues from Round, and north seven leagues from Domesnes lyeth Ambrook, that is a little Iland, which is round about foul, with sharpe stonie ground, and lyeth a great league distant from the coaste of Oesell. Betwixt Round and Ambroeck but nearest Ambroeck lye manie uneven Dwaelgrounds, of three, four, and five fathome. Ambroeck and the south ende of Oesell lye northeast, somewhat northerly, and southwest somewhat southerly about seven leagues distant. Under the south poynt of Oesell on the east side is a good roade for westerlye windes, If you will ancker there, then ancker in eight or seven fathome, so that the white church, which standeth somewhat within the southermost point, doe stand west & by south from you, there is good soft claye ground, and you shall lye sheltred for a west, & westsouthw. winde. The ground is there verie even & flatte, when as you gette the seven fathome, & saile towards the land, it continueth long all one depth of seven fathom, untill you come verie close by the shoare before it will be showlder.

Dwael-grounds.

Roade under Oesell.

It is there all alongst by the east coast of Oesel flatte ground of three, four, and five fathome.

For to saile from the south ende of Oesell unto Arentsbergh through within Ambroocke, you must leave two thirds of the water on the larboard side towards Oesell, & one third part on the starboard side towards Ambrooke, there you shall have about seven fathom water, and soft clay ground, Towards the coast of Oesel it is full of uneven Dwalegrounds; alongst by the west side of Ambrooke you cannot lightly take hurte.

Arentsbergh. Arentsbergh lyeth from the south ende of Oesel northeast distant tenne leagues, but from the Iland Ambroeck northwest four or five leagues. Upon the west side of Oesel the coast lyeth off from the south end unto Hondsorte, with divers bayes, about northnorthwest and southsoutheast sixteen leagues, betwixt them both lye two ladeplaces, Wyke and Reeck. Alongst this west coast of Oesel lye verie manie uneven and foul grounds, where of men must take verie good heede.

Towre upon Dagerorte. Hondtsorte, the northwest poynte of Oesell, and the poynte of Dagherorte lye northnorthwest, & southsoutheast about 8 leagues distant. Betwixt them both is a great baye, there runneth also a channell through, but it is so should, that no ships can go through, and all over sharpe & uneven ground. Upon Dagherorte standeth a high towre which the Wor. Counsell of the towne of Revell caused there to be builded, for to knowe the land by, which men may see on both sides of Dagherorte farre into sea, and also may see it over the land farre in the foresaid baye.

Under the poynt on the south side of Dagerorte is good lying for north & northeast winds and cleane sand ground. you may sound about by the poynt of Dagerorte in seven or eight fathome, on the north side of the poynte is good roade for southerly windes.

From Dagerorte to Syburghnes the coast lyeth northeast seven leagues. Betwixt them both, to wete, three leagues from Dagerorte, and four leagues from Syburghnes, lyeth a ground, going flat off thwart from the land northwest into sea, at least five or sixe leagues, almost in manner as the greate luttish riffe, is first of three, four, five, sixe and seven fathome deepe, and waxeth deeper by little & little towards the Finnish Scheers, where at last it runneth to nothing.

About three leagues without the land of Dagherorte, n. and north and by east from the high towre, there lyeth a suncken rock which is verie steep, whereupon there is no more then tenne foot water: A man of Ossaenen hath beaten upon it, which wente no deeper then eleven foote and a half, presently after the stroke he cast the lead, and found five fathome depth. The Towre of Dagheroort was then from him south and south and by west.

Syburghnes. Syburghnes is an out poynt, with two poynts, from each of which shooteth off a riffe, betwixt these two riffes is a faire flat sand strand, where you may ancker so neere the shoare as you will, in sixe, five or four fathome.

A little to the westwards of the westermost poynt of Syburghnes, not farre from the land lyeth a shoulde under water, aboute so great as a shippe, whereupon it is not deeper then twelve foot.

From Syburghnes to Oetgesholm the course is eastnortheast seven leagues, betwixt them both goeth in the Moensound.

To the southwards of Orgens-holm goeth in a great bay into the land, wherein lyeth an Iland, and behinde it a litle towne called Hapsael, there you may ancker where you will. On the southwest side of this baye, runneth off a great shoulde or ledge of rocks at least a great league into the sea, which is verie broade, you may runne in alongst by it into Monesound.

Oxeholm Grasholm

From Syburghnes to the Oxeholme & Graſholme the courſe is ſoutheaſt four or five leagues, the Graſholme are 2 little greene Ilands, and the Oxeholme lyeth aboute a league to the weſtwards of the Graſholm, about which you may ſaile, and aucker round about, a little league north and north and by eaſt from the Oxeholm lyeth a ground looſe from the land, which you muſt avoide, called the weſter Graſground, there are two ſhoulds, which are called the Graſgrounds, the other Graſground, which is called the eaſtermoſt, lyeth over againſt the Graſholm, towardes the riffe of Hapſael, upon which there is no more then five foot water. He that will ſaile into the Moenſound, muſt take heed thereof.

Graſ-grounds.

Moon-ſound.

He that will ſaile off from Oetgenſholme through the Moenſound muſt goe on ſouthſouthweſt to the Graſholme, and ſail in cloſe by it, for to auoide the Graſground, which lyeth to the eaſtwardes over againſt it. From the Graſholme to the poynt of the Oeſel, where the great tree ſtandeth upon, the courſe is ſouthſoutheaſt ſeven leagues. From the Graſholm towardes Oeſſell lye four little Ilands, each aboute a league one from the other.

When as you ſaile from Graſholme towardes Oeſel, you muſt ſayl alongſt by theſe little Ilands, leaving them lying aboute two or three cables lengths on the ſtarboard ſide, untill that you come to the land of Oeſel, over againſt the great tree. In this farewaie it is five fathome deepe.

The Caſtle of Moone ſound.

When as you come ſailing ſo alongſt paſt the Graſground, you ſhall meete with an Iland on the larboard ſide, to the northwards of it goeth in the Deepe unto the Caſtle of Moenſound in three fathome, but ſometimes, it is ſhoulder, for there it is all full of ſands. To the ſouthwards of the ſame Iland goeth in another Deep, which you may ſayle through, untill you come to the ende of Oeſell, and then you leaue the two little Ilands by the ſouth ende of Oeſell, lying on the ſtarboard ſide. But the right and beſt Deep, goeth from the aforeſayd great tree, in alongſt by the land Oeſell, which is three and four fathome deepe, and at laſt it will be ſixe, ſeven & eight fathom: when you ſaile alongſt there, you leaue the foreſayd two little Ilands by the ſouth ende of Oeſell lying on the laboarde ſide. From the greate tree to the firſt little Iland the courſe is eaſt ſouth e. five leagues; & then from the firſt little Iland to the ſecond ſouth-eaſt, and forth to the ende of Oeſell eaſt and by ſouth.

Paternoſter.

From that ende or northeaſt poynte of Oeſell runneth off a foul riffe, a great half league into the ſea, called the Paternoſter, which you muſt avoide.

From this northeaſt poynte of Oeſell unto Parno the coaſt of Lyſland lyeth eaſtſoutheaſt and w. n. w.

When you come about that poynte, you may ſaile into the ſea or baye of Rye, where you will, weſt and by north to Arentſbergh, ſouthweſt or ſomewhat weſterly to Ambrooke, ſouthſoutheaſt to Round, ſoutheaſt and by eaſt to Kinne, or where you will, the lying of Kinne is deſcribed here before.

Magno. Serck-holm.

From Kinne to Magno and Serckholm all alongſt unto Parno, the courſe is n.e. eight le. Thwart of Magno & Serckhollom it is betwixt Coerland and the Ilands, five and ſixe fathome deepe, and alongſt Coerland altogether a faire ſtrand.

Parno.

Parno lyeth in a great Baye, it is there in the roade three and four fathome deepe. For to ancker three, you muſt ancker ſo that the ſteeple of Parno ſtand northnortheaſt from you there is the beſt roade.

Oetgens holm.

Oetgenſholme and Syburghnes lye eaſt and by north & weſt & by ſouth ſeven leagues diſtant one from the other.

You may ſayle round aboute Oetghenſholme, and alſo ancker under it, for northerly and northweſt winds in ſixe or ſeven fathome.

Great Roge.

From Oetgenſholm to great Roge the courſe is eaſt and by north four leagues, betwixt them both, a little to the ſouthwardes of the farewaie lyeth a ſhoulde even aboue water, which you may ſayle round about, but you may not come verie neare it, becauſe it is ſtonie and rockie round about it. Great Roge is an outpoint with two or three white chalck hilles, and thereby is verie good to be knowne. Betwixte this poynt and Oetghenſholm, ſomewhat more ſoutherly lyeth another poynt, called little Roge, betwixt it & great Roge, goeth a broade Sounde into the land of ſixe and ſeven fathom depth, but in the ende it is ſhoulde. Thereaboutes it is all cleane ground, and good for to anker in. Little Roge.

From Great Roge to the Iland Narghen the courſe is eaſt five leagues.

When you ſail from Great Roge towards Narghen, you ſhall finde four leagues to the eaſtwards of great Roge an other poynt with two white chalck ſpots, called Surp, betwixt it & great Roge, the land falleth awaie to the ſouthwards, into a great baye. If you will ſaile to Revell, then ſail alongſt by that poynt of Surp, towards Narghen, leaving it on the larboard ſide of you, going on ſtill eaſt, until you come to the eaſt end of Nargen. Being there by it, then goe on eaſtſoutheaſt a league and an half, and then you ſhall com by the end of the riffe, which lyeth off from the Blote Karels, come no nearer it then in ſixe fathome. When as the caſtle of Revel cometh without the Karels, then ſail right unto the head of Revel, until you come to the eaſt ſide, let your anker fall there, and then hall with the fore-ſhip or ſtearne, to the head, and make you faſt by foure cables, for the n. & n.n.w. windes which blow there flat open in, making it a lee ſhore, ſo that ſometimes with ſuch winds there commeth in a rowling ſea. Riffe of the Karels. Revel.

Eaſt about foure leagues from the ſouth ende of Nargen, lyeth the Iland the Wolfe, which is aboute a league long.

Northnorthweſt, and northweſt & by north two leagues from the weſt end of the Iland the Wolf, and northeaſt and northeaſt and by eaſt from the north end of Nargen lyeth a rock under water, called the Revel-ſtone, although there be no more water upon then 3 or 4 foot, yet it is in the Summer time with faire wether, oftentimes ſo ſmooth water, that it doth not break upon it, and it is alſo very ſteep, ſo that you may not come neerer it by your lead then in 12 fathom. The markes for to knowe the place of this Revel-ſtone are theſe: When the northeaſt end of Nargen is ſouth weſt and ſouthweſt & by w. from you, and the high ſteeple of Revell is a capſtone barts length, or a little more to the weſtwards of the weſt end of the Iland the Wolfe, then you are right thwart of this rock. The ſteeple of Revell is alſo then right ſouth from you. But when the ſteeple of Revell cometh to the Wolfe, and that you are bound to the eaſtwards, and you are ſurely paſt this Revell-ſtone, and a good wayes to the eaſtwards of it. Revel-ſtone. The wolf.

From the weſt end of the Iland the Wolfe lyeth off a riff to the northwardes into the ſea, about an Engliſh mile toward the Revel-ſtone, upon the end of this riff lye five or ſixe rocks a little aboue water. If you come away from Revell on north & by weſt alongſt by the Wolf, the marke the poynt of Surp, when that cometh even unto the ſouth end of the Iland Nargen, then you ſhall alſo have even the length of the foreſayde riffe. If you looke out then on the ſtarboard ſide, and be not ſayled very farre alongſt to the weſtwardes of the Wolf, you ſhall ſee the foreſayd rockes (lying upon the end of the riffe) lye thwart from you, & then you may run to the northwards about by them in 5 fathom without doing amiſſe.

Betwixt Nargen and the Wolf lyeth alſo a ſtony ſhowld which is very broad, but much neerer Narghen then the Wolf, and lyeth from the ſouth poynts or Narghen about northeaſt, and from the north poynt eaſtſoutheaſt. Therfore if you bring the ſouth poynte of Nargen about ſouthweſt or ſouthweſt and by ſouth, & the foreſayd north poynt weſtnorthweſt from you, and that the Wolf lye then free from the maine land, you ſhall not miſſe to fall upon this ſhowld. Showld of Nargen.

You may ſaile round about Nargen, and alſo ancker under it for northerly and weſterly winds in 10, 12, 14, and 18 fathom. Nargen.

From Nargen to the Iland Wranger the courſe is eaſt ſeven leagues. The lying there of you may ſee in the following.

Of the coast of Finland betwixt the Alands Haffe and Elfenvos.

BEtwixt Vxe or Boftell on the coaſt of Sweden, and the Ilands of Aland, goeth in the Alandts Haff, which men do call the North Bodem, which lyeth upſo farre to the northwards into Finland, that a ſhip with good freſh way ſhould ſcarce be able to ſayle to the end of it in 5 dayes: upon the fartheſt end of this North Bodem lyeth the towne Toreu, there Sweden is parted from Finland.

Alandts.

At the outermoſt rocks of Finland on the Alandts Haff lye 3 Ilands, Ercke, Kaſtelholm and Corpe. Ercke is the weſtermoſt of all, & the outermoſt, from thence goeth in the Corpe ſound, northeaſt alongſt thwart of Caſtelholm and Corpe. Corpe lyeth within the other Iland, and from Corpe you may edge over into the Liet of Abbo, which commeth running off from Vttoy: you may alſo ſayle up into this channel about behind Lipland, and ſo com out into the North Bodem.

Ercke. Corps.

Vttoy is a great Iland, upon it ſtandeth a great maſt with a barrell for a beakon, and lyeth from the Iland Corpe eaſt and weſt about 9 leagues. On the weſt ſide of Vttoy goeth up the Liet of Abbo, which lyeth in firſt north & north and by eaſt about 3 or 4 leagues, & then you come on againſt a great Iland. And then it lyeth in alongſt that greate Iland northeaſt unto the Sound of Abbo. Abbo lyeth at the end of that foreſayd great Iland. This Liet runneth up alongſt to the eaſtwards through betwixte the rocks about 13 leagues, within it lyeth a rock under water which is a Magnes or Load-ſtone, alſo the ground ſeemeth to be there of the vertue of the Lode ſtone, for when you come thereabouts, the compaſſes doe not ſtand, but run & turne without any certain ſtanding ſtill, untill that you be at leaſt a league paſt it, and then they begin to ſtand right againe. From thence it lyeth eaſt & eaſt & by ſouth all alongſt through the rocks unto the Rough Iland, to the weſtwardes of it runneth the channell of Luys into the ſea, when you are thwart of it ſea, you may ſee the land of Revel. It is there betwixte them both, to wit, betwixte the Out-rockes & Nargen, or the land thereabouts ten leagues broad.

Vttoy. Abbo. Magnes. Luys.

The Out-rocks of Luys, and the channell of Vttoy lye eaſt and weſt about 21 leagues diſtant, althought it be there betwixt them both all broken land, and full of rocks, yet nevertheles there are no havens nor channels fit for ſhips to come into.

From Luys alongſt without the Rocks to the channell of Elſenvos the courſe is eaſt & by north 15 or 16 leagues, but Nargen or the Wolf, and the channell of Elſenvos lye northnortheaſt and ſouthſouthweſt about 16 or 17 leagues aſunder.

The Coaſt of Lyfland.

VVranger.

The Iland Wranger lyeth from Nargen eaſt diſtant 7 or 8 leagues, and three leagues eaſt & by ſouth from the Wolf.

Under Wranger is on both ſides good road & good ancker-ground, eſpecially on the ſouth ſide, where there is a Bay, there you may ancker betwixt the 2 points in 10, 12, or 14 fathom, according as ſhall be convenient, & lye ſheltred for a northeaſt & eaſt, and allo for a northweſt & weſt winde. You may ſaile round about Wranger, but from ſome poynts (as from the ſouth pointes, & from the north point) lye off ſome little riffes, whereof you muſt take heed, and be carefull in uſing the lead when you ſaile about by them.

Little VVranger.

About an Engliſh mile from Wranger lyeth little Wranger, a litle long ſmall Iland, lying about northweſt & ſouthеaſt, which is rocky & foul, eſpecially on the northeaſt ſide. From the ſoutheaſt point runneth off alſo a rocky riff, whereof you muſt take heed.

On the ſouthweſt ſide is good anckering for northeaſt & eaſt windes, ancker under it, ſo that the ſoutheaſt point lye about eaſt from you, there is good lying for northeaſt & eaſt windes.

From the northweſt pointe runneth off alſo a little riffe, which you may ſound about in foure, five, or ſix fathom, according as your ſhip goeth deepe, when as you will goe to ancker there, comming from the northwards, or about to the northwards of the Iland.

About a great league north from the eaſt ende of Wranger, & two little leagues north & by weſt from little Wranger lyeth a little Iland, which by ſome is called Kuyken, but commonly is called the Kocxſchaer, which is a little bare rock with a Warder upon it, you may ſaile round about it on both ſides, it lyeth from the Wolf northeaſt & by eaſt diſtant 2 great leagues.

Kocxſchaer.

From Wranger to Eckholme the courſe is eaſt ſoutheaſt 13 leagues.

Three leagues by weſt the Echolms lyeth an out-poynt, to the eaſtwards of it is a Bay, called the Monkwyke, there it is good Anckering for ſouthweſt & weſt winds in 8, 10, or 12 fathom. Betwixt this point of the Monkwyke and Wranger lye three little long Ilands, lying alongſt the coaſt of Lyfland, about a halfe league from the ſhoare, which are very foule & rocky, & almoſt nothing but rockes, whereof you muſt take heed, otherwiſe the coaſt betwixt them both is cleane.

Monkwyke.

The Iland Eckholm is clean round about, and lyeth about northweſt & ſoutheaſt, it sheweth it ſelf high at both ends, and in the middeſt with a Valley. Under Eckholme is good anckering at the northeaſt ſide for weſt & ſouthweſt winds in 20, 22, & 25 fathome, and on the ſouthweſt ſide for eaſterly winds.

Eckholm.

Five leagues to the eaſtwardes of Eckholme lyeth the Caſtle Telsburgh, thwart of it lyeth off a shouwld from the shoare, but you may ſound it in 8 or 9 fathom. From thence the coaſt lieth alongſt moſt eaſt & by ſouth unto the road of the Narve about 16 leagues, it is altogether cleane without fowle ground, ſo that you may alſo ſail alongſt there by night in 8 or 9 fathom without feare.

Telsburgh.

Northwards from this coaſt in the fareway betwixt Eckholm & the Iland of High-land lye the Chalck-groundes, Hoſts, the little & great Tutters, all of them with very dangerous foule grounds & showlds. Eckholm & High-land lye eaſtnortheaſt & weſtſouthweſt diſtant about 11 or 12 leagues. About 2 or 3 leagues eaſt & by north, or eaſtnortheaſt from Eckholme, and alſo two leagues from the main land lye the Chalkgrounds, which are foul grounds, almoſt 3 leag. long under water, & ly to the weſtwards w. n. w. into the ſea, and to the eaſtwards almoſt to the riffes of the Hoſtes. Some ſay that they are faſt to it, ſo that you should not be able to ſaile through betwixt them.

Chalckgrounds.

The Hoſtes lyeth ſouthſouthweſt from High-land about five or ſixe leagues, which is a long ſmall Iland foule round about, with two fowle riffes that lye out, the one lyeth off ſomewhat to the eaſtwards, and the other to the weſtwards unto the Chalck-grounds.

Hoſtes.

Northwards from the Hoſtes lye the little Tutters, and 2 leagues to the eaſtwards of the little Tutters lye the great Tutters.

The little Tutters are two Ilands not high, but round about rocky, riffy, and fowle, they lie ſ. w. and ſ. about 3 leagues from Highland.

Little Tutters.

The great Tutters lye from the little Tutters eaſt about two leagues, and from Highland ſouth and by eaſt alſo two leagues, there lyeth off from it alſo a great ſtony riffe weſtwards towards the little Tutters: there lyeth alſo betwixte the little and great Tutters a row of rockes, where of you muſt take heed when you will ſayle through betwixt them.

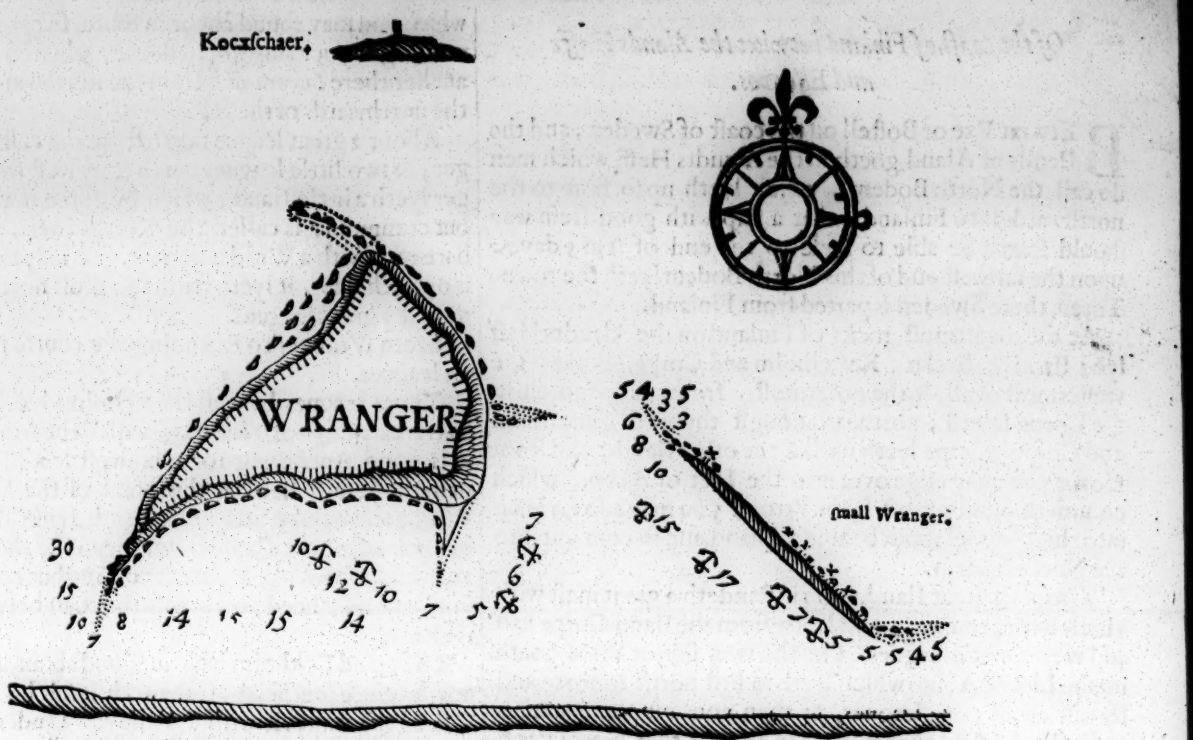
Greate Tutters.

Southeaſt and by ſouth about two leagues from the great Tutters lyeth a showld of five fathom. He that will ſayle to the ſouthwardes of theſe foreſayd Ilands and showlds towardes the Narve, may be mindfull thereof, it lyeth about foure leagues to the eaſtwards of Telsburgh, two or three leagues from the shore.

Betwixt the great Tutters and Highland lyeth a showld upon which there is no more then 6 foot water.

Sbowld.

Southeaſt a great halfe league from the ſouth end of Highland lyeth another showld of a fathom and halfe and 2 fathom deep.



To the northwards of all theſe foreſayd rocky Ilands & fowle showlds, lyeth a little Iland whereupon ſtandeth a Maſt for to know it by, and to diſcerne it from the other little fowle Ilands, that you may come indifferent near to, but not too neare, for it is alſo ſomewhat rocky and fowle, but not farre off, it lyeth from the little Tutters weſt and by north about two leagues, from the Iland Highland ſouthweſt and by w. at leaſt foure leagues, but from Wranger or the Koeckſchaer eaſt and by north 20 leagues.

He that will ſayle off from Wranger towards the Narve alongſt to the northwardes of theſe foreſayde grounds, and doe get ſight of this little Iland with the maſt, may thereby the better known to direct his courſe, but it is not wiſdome to ſayle through theſe foreſayde showlds, except for them that are very wel acquainted.

Highland or Hoghland. The Iland Highland, or Hoghland, is about three leagues long, and not a league broad, lying ſouthſoutheaſt & northnorthweſt. When you come out of the weſt, it ariſeth in 3 hommocks, ſo high to looke to as Coll in the Sca wreach, upon the north end and upon the eaſt ſide it doth ſtand all full of trees. A little about the north poynt on the eaſt ſide is a litle bay thwart of a Boers houſe, there it is clean ground and good lying for weſterly & ſouthweſt winds, ſomewhat to the ſouthwardes of it, not very far from the shore, lyeth a great rock above water. At the north end is alſo good lying for a ſoutheaſt wind. Alongſt the ſouthweſt ſide you may alſo ancker every where in 16, 17, or 18 fathom cloſe by the land for eaſt & northeaſt winds.

From the ſouthweſt ſide of High land unto the road of the Narve, the courſe is ſoutheaſt about ſixteen leagues, & then you run through betwixt the High land & the Tutters.

Likewiſe when as you ſaile on northweſt from the roade of the Narve, then you run alongſt betwixt the Tutters & Highland, but you muſt be very careful, and take heed of the foreſayde showlds, which ly betwixt them both.

The Narve. The land of the Narve men do know by 3 high hills, lying a league to the weſtwards, or to the ſouthwards of the road, and a league further to the weſtwards ſtand ſome litle houſes upon the high land.

The towne of the Narve lyeth upon a river about two leagues within the land. For to ſayle in there men were wont to look out for a long hill, which lyeth on the ſouth ſide within the rivers mouth, & at the eaſt end goeth downe ſomewhat ſteep, with ſome high trees to the eaſtwardes of it, then they brought the woodden tower of the Narve to the northwards of the foreſaid trees, and did run in ſo with it. When as the eaſtermoſt of the 3 foreſayd hils (a league to the weſtwardes of the rivers mouth) came over a little hommocke, which lyeth on the water ſide, then they were upon the barre of the rivers mouth, there was upon the ſhowldeſt ten foot water, and then they ſailed up the river; that was wont (for ſome years) to be ſo, but it is poſſibly ſince that time more or leſſe altered, like as it doth of entimes happen in ſuch rivers.

From the road of the Narve to the Ruſſe-haecks the courſe is northnorthweſt five leagues, which lye with many rockes a good wayes off from the ſhore. The poynt thwart of it is called the poynte of Caſtrum after a little town (ſo called) lying there. Ruſſe haecks.

From the Ruſſe-haecks northnorthweſt 5 leagues lyeth a little Iland called Rette Sarre, from which there runneth off a rif ſouth into ſea. From this Iland, or a league to the weſtwards of it unto the Summers the courſe is ſouth and north 4 or 5 leagues. Rette Sarre.

Eaſtſoutheaſt from Highland, and 3 leagues from the Ruſſe haecks lyeth another ſholwd called the Slimme-grounds, it lyeth long & ſmall alongſt northnorthweſt and ſouthſoutheaſt, with hard wind you may ſee it break in 4 or five places: when it is weſt from you about halfe a league, there it is a fathom deep to three, foure, five and ſix fathom uneven ground, ſome of the rocks of it lye alſo above water. Slimme grounds.

From the Ruſſe haecks to the Rode-hell the courſe is northeaſt about foure and twenty leagues, betwixte them both on the Ruſſe ſide, runne alſo divers rivers into the land, but there is no trade. The land there lyeth in a great bight, it lyeth firſt from the Ruſſe-haecks unto the River of Nioa, or Oreſchacke eaſtnortheaſt about thirteen leagues, there parteth Ruſſland from Finland by a great Meer or water, called the Ladingh. The Lading.

The ſtrong caſtle of Noetenburgh lyeth there alſo upon a river which lyeth out of the Lyflands or eaſt ſea into the foreſayde Lading. Further the land lyeth northnortheaſt, and north and by weſt about thirteene leagues unto the Rode-hell.

For to ſayle from Revell to VVyburgh.

FRom a little to the northwardes of the Kocxſchaer to Higland the courſe is eaſt and by north a little more eaſterly 23 leagues, with that courſe you runne alongſt a little to the northwards of it. You may ſayle about Highland on both ſides, but alongſt to the northwardes of it is the right fare-way for theſe that are bound to Wybrough. A halfe league north and by weſt from Highland lyeth a ſuncken rock under water. For to avoid it you muſt ſayle cloſe alongſt by Highland. Further, the lying of Highland hath been deſcribed here before.

From Highland to the Summers the courſe is eaſt & by north ſeven leagues. Summers is a rock or little Iland almoſt like the Bartholms, it ſheweth it ſelfe in 3 hommocks. A little to the eaſtwards of it lye ſome rocks above water: Summers

you

you may sayle about on both sides of Summers, and also through betwixt Summers & the foresaide rocks that lye to the eastwards of it: but about to the northwards of it is the right farewaye, you cannot also runne alongst farre to the northwards of it, for a halfe league to the northwards of it, it is very fowle & full of little rocks, some aboue and some under water.

Goeschaer greate Fisher. From the Summers to the Goeschaer the course is eastnortheast seven leagues. The Goeschaer which by some is called the great Fisher is a long & broken Iland of 7 rocks, therefore it is also called the Seven-rocks, it lyeth not far from the land, so that you cannot get sight of it, before that you come neare it, it sheweth it selfe whē you shall first see it, in 4 hommocks, as if it were 4 little low Ilands, you must leaue it lying a halfe league on the larbord side, for to avoid a suncken rock which lyeth off from it s.s.e. a great shot of a cast peece. When the water is not very smooth, but a little grown, you may perceiue it by the breaking of the water: you may also well sayle to the northwardes of this sunken rock, to wit, through betwixt the suncken rock & the Goeschaer, then you must run indifferent close alongst by Goeschaer; when it is northwest and by north from you, then you are past the foresayde suncken rock, whether that you run alongst to the northwards or to the southwards of it.

Litle Fisher. From the Goeschaer or great Fisher to the little Fisher, the course is northeast and by east three leagues. The little Fisher is a bare round rock which lyeth not farre from the land: when you come neere it, you may know it well from the other rockes, because there lye none so farre from the land alone, you may saile about it on both sides, but alongst to the southwards of it is the right fare-way. About a shot of a cast peece southeast, or southeast and by east from this little Fisher, lyeth a black rock with the top even aboue water, almost like a buye upon the Flyestreame, to see to a farre off as if it were a Seales head. This rock you must leave on the starboard side, ad runn through betwixt it and the fisher.

Russe haecks.

Rette Sarre.

Hee that must turne to windwards hereabouts, let him not come very neer this rock, for men doe hold that there lye more rockes by it under water.

Slimme grounds.

Both the Fishers are otherwise clean round about, so that you may also finde road under them.

Corsnes. From the little Fisher to the poynt Corsnes, which the Lubickers doe call Kruysoort, the course is eastnortheast somewhat easterly a league. Corsnes is a poynt going off low of the maine land, not very clean, which you must leaue on the larboard side. To the westwards of Corsnes lye two little Ilands close to the land. Thwart of the poynt lyeth a rock almost like a little boat, you may runne about by it in foure fathom and a halfe, but not nearer. On the east side of that poynt you may ancker for Westerly winds in five or sixe fathom.

The Lading. About 2 leagues thwart off from Corsnes, lye very many rocks, some one fathom, some a halfe fathom, some more, and som lesse under water, you may not goe out of the fareway without great feare and danger. It is impossible to describe all the uneven grounds, the great multitude of rocks & rocky showlds which are lying thereabouts.

Summers

Rodehell. From Corsnes to the Iland Rodehell the course is northeast and by north about three leagues. Rodehel is a greate rough Iland with a saddle in the middest, which you must leaue lying on the starboard side. The north poynt is a red poynt, there stand up long staues over end, like unto a Warder in Norway, you must goe close alongst by them, or you may runne in amidst the channel, according as shal be best convenient, but you may not goe close by the north poynt over against it (which the Dutch shippers doe cal Ian Lambertsons point) because of a stony and steepe litle riff which lyeth of from it, but you may runne about by it upon your lead in seven or eight fathom, but may come no neerer, the right fareway betwixt them both is fourteen and fifteen fathom deepe.

Betwixt the point of Corsnes & the Rode-hell, it is not without danger to turn to windwards, especially you must be very carefull not to run too farr over to the southwards, but to the northwards, towardes the maine land, it is indifferent cleane: It is there in the fareway fifteen fathome deepe, soft clay ground.

For not to misse this foresaid channel, or the north point of the Rodehell, then take marck out a stearne of the little Fisher, bring that evē without the point of Corsnes, & keep it so standing sailing towards the Rode-hell, and so you shal not saile to fal right before the channel. This is a sure mark whereupon you may trust. If you fall somewhat to the southwards of the foresaid channel, you can see opening, but seemeth to be all whole to the maine land, so that men (that are not well acquainted) might not know where to seek the channell, but sailing to the northwards the channel doth open it self.

When as you shal be then within the foresaid point of Rode-hel, you may ancker there where you please, & fetch a Pylot frō the land, which may bring you up to the towne Wybrough. It is there within 15 fathom deepe, and good soft clay-ground.

If you will (being come within the Rode-hell) saile up to Wybrough, then goe on east & by south a shot of a cast peece unto a black point, leave that about 2 cables lengths on the larboard side, for there it is not cleane. Being a little past this black point, then go on northeast, or eastnortheast a halfe league, and then you shal com against a great white sand-bay, but before you come by this sand-bay, you shall meet a rock with a gray stone like a buye upon the Flystream, leaue that foresayd rock on the starboard side, and the gray stone on the larboard side, and run amidst the chānell through betwixt them both, there it is three fathom deep. It is no wisedome to sayle up there for him that hath not beene there before, but it is best to ancker a little within Rodehell, and to let him be brought up by a Pylot.

The Coast of Finland betwixt Elsenvos, and Wybrough.

THe Channel of Elsenvos lyeth from Narghen or the Wolfe n.n. w. & s.s.e. about 16 or 17 leagues, & from Wranger s. and n.

Kubben Upon the west side of the channell lyeth a high round rocke, whereupon standeth a mast, or Warder, called Kubben, over against upon the other side of the channel lyeth a long rocke or Iland called Sautum, and an halfe league to the eastwardes of Kubben lyeth another great round rock called Mely. These three rockes are the best markes to be known of this foresaid channell.

Sautum

Mely.

Betwixt Kubben and Sautum lyeth that channell in from thence n. e. untill that you bee within the rockes, and then n.n.e. and n. and by east, until you come before the river of Elsenvos, there you may anker betwixt the rockes in good ancker ground.

Elsenvos

There runneth also a Liet through within the rockes, where you may sayle alongst, and come out againe into the sea by Putsfagre, this runneth aboute very crooked with many bights, but it is Pilots water.

If you will sayle to borgo, then runne a league to the eastwards of the foresayd rock Mely, there you shall finde two high bare rockes, called the Tolckē, runne in betwixt them both, but neerest to the eastermost, which is cleane and cleare close to it, and lyeth somewhat further to seawardes then the westermost. Westnorthwest from this eastermost high rocke, lyeth a little rocke aboue water, leaue that on the larboard side. When as then you shall be by this eastermost rock, which you leaue lying on the starboard side of you, then goe on n. n. e. to Schoeland, that is a rough Iland off from which lye many bare poynts, all which you must leaue (with the Iland also) on the starboard side, then runne alongst close by these bare poynts. When you are past them, goe then northeast and by north somewhat easterly, and so you shal see two other bare rockes, the eastermost of the greatnesse of a shippe very steepe and high, but the westermost is small, run in there betwixt them: the Sound is called Cramer-poort. When you are within them, goe then in north & by east, and then you shal presently meet with a greate Iland called Cramer, leaue that on the starboard side, and so you runne richt on with an other greate Iland, called the Hester, leaue that on the larboard side, & ancker

Borgo.

Cramer-poort.

Cramer.

the Hester.

ancker betwixt the 2 Ilands Cramer and the Heſter, there is good anckerground.

Pelting-ſound. From the mouth of the Sound of Elſenvos to Peltingſound the courſe is eaſt, and eaſt and by ſouth eleven or twelve leagues. Pelting ſound lyeth in northeaſt, there you lye within a great many great rockes, or little Ilands, ſheltred for all windes. You may ſayle from thence through within the rocks all over where you deſire to be, if you have a good skilfull Pilot.

Putsfagre From Peltingſchares to Putsfagre it is five leagues. Putsfagre is a great rock, or Iland, lying from Highland north-northweſt diſtant five or ſixe leagues. About a league ſouth from this Iland Putsfagre lyeth a ſuncken rock, which you muſt avoid. Hee that wil ſayle through within the rocks, let him take a Pylot from Putsfagre, that may bring him through the rockes where hee deſireth to be: jou may run in there every where, & within the rockes it is moſt all over good ancker ground.

Epelſchares. From Putsfagre to the Epelſchares the courſe is eaſt ſeven leagues: theſe are a great many out-rocks, a little to the eaſtwards of them lyeth a great rocke called Quadeſchare which you may ſayle round about.

Goeſchaer From Epelſcharen to the Goeſchare the courſe is eaſt 10 leagues. That, and the lying of the land, and dangers from thence eaſtward, hath beene deſcribed here before.

How theſe lands doe lye one from the other, and from the other lands.

From Derwinda to Lyſerorte northeaſt & by n. 4 lea.
From Lyſerorte to Domeſnes eaſtnortheaſt 12 or 13 lea.
From Domeſnes to Round eaſt and by n. ſomewhat eaſterly 8 leagues.
From Round to Duynemondt or the mouth of the river of Rye ſouthſoutheaſt 16 leagues.
From Domeſnes to Rye or Duynemond ſ.e. 21 lea.
From Duynemondt to Lemſael or Sales northnortheaſt 12 leagues.
From Duynemond, or the mouth of the river of Rye to the Iland Kinnorth & by weſt 13 or 14 leagues.
From Round to the Iland Kinne eaſt & by n. 10 lea.
From Domeſnes to the ſouth ende, or the rode of Oeſell northweſt 3 great leagues.
From Domeſnes to Ambroeck n. n. e. 5 leagues.
From Round to Ambroeck n. w. and by n. 8 leagues.
From the ſouth ende of Oeſell to Arentſbergh northeaſt 10 leagues.
From Lyſeroorte to Howbrough weſt and by ſouth ſomewhat ſoutherly 40 leagues
From Lyſerorte to the poynt of Alant or the Ilands northnorthweſt 59 leagues.
From the ſouth poynte of Oeſell to Hondtſorte n.n.w. and north and by weſt 16 leagues
From Hondſoort to the poynt of Dagerorte northnorthweſt 8 leagues.
From Dagerorte to Syburghnes e. & by n. 7 leagues.
From Syburghnes to the Oxeholme and Graſholme northeaſt 4 or 5 leagues.
From the Graſholme to the great tree upon Oeſell ſouthſoutheaſt 7 leagues.
From the northeaſt point of Oeſel to Parno eaſt & by ſouth about 16 leagues.
From Arenſbergh to the northeaſt point of Oeſell e. & by ſouth 8 or 9 leagues.
From Ambroeck to the n. e. poynt of Oeſel n.e. ſomewhat eaſterly 9 or 10 leagues.
From Round to the northeaſt end of Oeſel north ſomwhat weſterly 13 leagues.
From Lemſael to Parno n. n. e. 9 leagues.
From Dagerorte to the Roſehead ſ.w. & by ſ. 80 lea.
From Dagerorte to Eaſtergore ſ.w. & by w. 37 lea.
From Dagerorte to the Godtſche ſand w. & by ſ. 27 lea.
From Dagherorte to Boechſchaer w.n.w. 21 lea
From Dagherorte to the poynt of Alandt or the Ilands northweſt and by north 20 leagues.
From Syburghnes to Oergenſholm e. & by n. 7 leag.
From Oetgenſholm to greate Roge eaſt and by north 4 leagues.
From great Roge to Surp eaſt 4 leagues.
From Roge to Nargen eaſt 5 leagues.
From the ſouth end of Nargen to the Iland the Wolf, eaſt & eaſt & by north 4 leagues
From Revell to the Wolfe north 5 leagues.
From Oetgenſholme to the outrocks of Luys north and by eaſt 15 or 16 leagues.
From Syburghnes to the channel of Abbo, or Uttoy northweſt 20 leagues.
From Uttoy or Abbo to the channell of Luys the courſe is eaſt 21 leagues.
From Luys to the chanell of Elſenvos eaſt and eaſt and by north 15 or 16 leagues.
From Nargen to the channel of Abbo, the courſe is w.n.w. 32 or 33 leagues.
From Nargen or the Wolfe to the channell of Elſenvos n. e. & by n. 16 leagues.
From Nargen to the Out-rocks of Luys n.w. and by north 13 leagues.
From the Wolfe to Peltingſchares n.e. ſomewhat eaſterly, or n.e. and by eaſt 20 leagues.
From the channell of Abbo to Boeſchaer ſ.w. & by ſouth 16 leagues.
From the Iland the Wolf to Wranger eaſt and by ſouth 3 leagues.
From the Wolf to the Kocxſchaer eaſt & by north 3 leag.
From the Kocxſchaer to the eaſt end of Wranger ſ. and by eaſt 1 league.
From the Kocxſchaer to little Wranger ſouthſoutheaſt 2 leagues.
From Wranger to Eeckholm eaſt & eaſt & by ſouth 13 lea.
From Eeckholm to the Caſtle of Telſburgh eaſt ſoutheaſt 5 leagues.
From Telſburgh to the roade of the Narve eaſt ſoutheaſt 16 leagues.
From the road of the Narve to the Ruſſehaecks n. & by w. 5 leagues.
From the Ruſſehaecks to the River Nioa, or Oreſchack, e. n. e. 13 or 14 leag.
From Oreſchack to the Rode-hell n. & by eaſt 15 or 16 le.
From the Ruſſehaecks to the Rodehell n.e. & by n. 27 lea.
From Ruſſehaecks to tha Iland Rette Sarre north 5 lea.
From Rette Sarre to Sommers n. n. w. 4 or 5 leagues.
From Eeckholme to the Iland Highland eaſt northeaſt 11 or 12 leagues.
From the weſt ſide of High-land to the road of the Narve ſ. e. & by ſouth 16 leagues.
From Highland to the little Tutters ſouth 3 leagues.
From Highland to the great Tutters ſouth 3 leagues.
From the Iland with the Maſt to the little Tutters e. by ſ. 3 leagues.
From the Kocxſchaer to the Iland with the maſt eaſt & by ſouth
From the Iland with the maſt to the Highland n.e. & by e. 4 leagues. 20 leagues.
From the Kocxſchaer to high-land eaſt 23 leagues.
From Highland to the Sommers eaſt 7 leagues.
From the Sommers to the Goeſchaer or great Fiſher n. e. ſomewhat eaſterly 7 leagues.
From the great Fiſher to the litle Fiſher n.e. & by eaſt thre leagues.
From the litle Fiſher to the Corſnes e.n.e. ſomwhat eaſterly 1 league.
From Corſnes to the Rode-hell n.e. & by n. 3 leagues.
From the ſound of Elſenvos to Peltingſound e.ſ.e. 11 or 12 leag.
From Peltingſound to Putsfagre eaſt 5 leag.
From Putsfagre to the Epelſchaers eaſt 7 leag.
Frō the Epelſchaers to the Goeſchaer or great Fiſher eaſt 10 leag.
From Eeckholm to Elſenvos n. w. and by north 10 leag.
From Highland to Peltinſchares northweſt & by w. 8 l.
From Highland to Putsfagre northnortheaſt 7 leag.

How

How theſe Lands doe ſhew themſelves at ſea.

Coerland ſheweth it ſelfe in this forme, betwixt Lyſeroort & Domeſnes, when you faile alongſt by it.

Thus ſheweth the coaſt of Coerland, from Domeſnes paſt Derwinda, and the Backovens towards Der Liba.

When you ſaile about Domeſnes, then Oeſel ſheweth it ſelfe thus.

The little Iland Ambroeck.

The Iland Round, when you ſaile alongſt by it, ſheweth it ſelf thus

Round.

Thus ſhewet Coerland to the eaſtwards of Domeſnes.

The mouth of the Duyn.

When you come againſt the mouth of the Duyn, the River of Rye, the land ſheweth it ſelf on both ſides of it thus.

When Dagherorte is n.n.e. foure leagues from you, it ſheweth thus.

Dagherorte being northeaſt from you 3 or 4 leagues ſheweth it ſelf thus.

In this forme appeareth Dagherorte, when the towre is eaſt & by ſouth, and the northermoſt point is eaſt from you 4 leagues, and then you may even ſee it in clear weather from below.

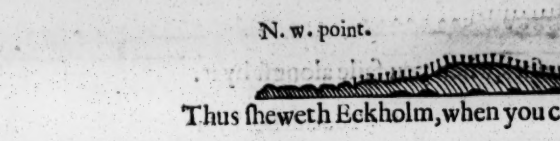
When as the towre upon Dagherorte is ſoutheaſt & by ſouth, and the land to the eaſtwards of it is ſoutheaſt foure leagues from you, then it ſheweth it ſelfe thus.

When the towre of Dagherorte is ſouthſoutheaſt from you, then it ſheweth it ſelfe (with the land to the weſtwardes of it) thus.

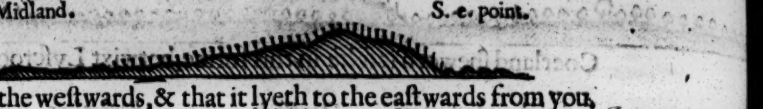
Thus ſheweth the land of Dagheroort towards Syburghnes.

Thus ſheweth Syburghnes when the high Hill is ſouthſouthweſt 4 leagues from you, there it is five and thirty and ſix and thirty fathom deep.

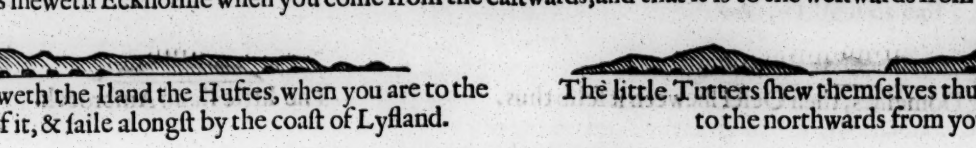
Thus ſheweth Revell when you are by the Revelſtone without the Wolf.



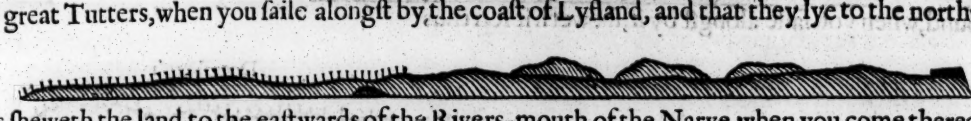
The forme of Oetgenſholme.



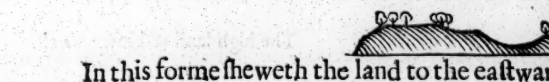
The Iland Wranger ſheweth thus, when it is ſoutheaſt and by eaſt 3 leagues from you.



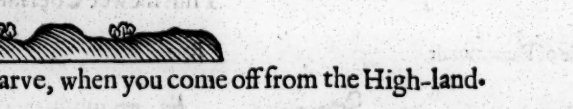
Thus ſheweth Eckholm, when you come from the weſtwards, & that it lyeth to the eaſtwards from you.



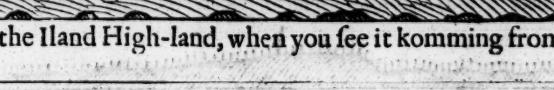
Thus ſheweth Eckholme when you come from the eaſtwards, and that it is to the weſtwards from you.



In this forme ſheweth the Iland the Huſtes, when you are to the ſouthwards of it, & ſaile alongſt by the coaſt of Lyfland.

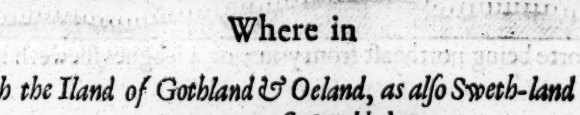


The little Tutters ſhew themſelves thus, when the lye to the northwards from you.

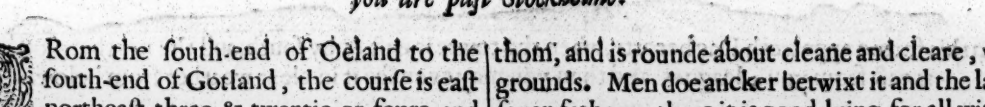


Thus ſhew the great Tutters, when you ſaile alongſt by the coaſt of Lyfland, and that they lye to the northwards from you.

Thus ſheweth the land to the eaſtwards of the Rivers-mouth of the Narve, when you come thereabouts, comming off from the High-land.



In this forme ſheweth the land to the eaſtwards of the Narve, when you come off from the High-land.



Thus ſheweth the Iland High-land, when you ſee it komming from the weſtwards.

The fourth Demonſtration,

Where in

Are ſet forth the Iland of Gothland & Oeland, as alſo Sweth-land coaſtes, untill you are paſt Stockholme.

FRom the ſouth-end of Oeland to the ſouth-end of Gotland, the courſe is eaſt northeaſt three & twentie or foure and twentie leagues but to the Karels northeaſt 27 leagues.

The courſe alongſt the farewaie, for to ſayle from the ſouth end of Oelandt through betwixt Oelandt and Gotlandt, is n. e. & by n.

The Iland Oelandt is twentie four leagues long, and a league and half broad, when men ſayle alongſt by it they may counte eighteene towers upon it, which are all flat: the eaſt coaſt is a clean coaſt, & lyeth northnortheaſt & ſouthſouthweſt, but about 7 or 8 leagues to the ſouthwards of the northend, there ſhooteth off a little riffe, thwarte from the land a great half league into the ſea, which men muſt avoid: by it goeth in a little haven, where indifferent ſhipps may goe in, otherwiſe Oeland hath no havens.

From the ſouth end of Gotland runneth off a foule ſtonie riffe, a good wayes in to the ſea, you may run about by it upon the lead in ſeven, eight and nine fathom.

The Karels are two little high Ilands, lying on the weſtſide of Godtland north & by weſt about ſeven leagues from the ſouth point of Gotland, and eaſt and weſt, about a halfe league one from the other, the greateſt is called the greate Karell, and lyeth a great league from the land: the ſmalleſt, the Little Karell, and lyeth about a halfe league from the ſhoare. When you come from the ſouthwards, the greate Karel ſheweth it ſelfe in two hommocks, and the little Karell in one hommock, & nearer to the land. Under the litle Karell is round about good roade, in eight, nine, and ten fathom, and is rounde about cleane and cleare, without foule grounds. Men doe ancker betwixt it and the land, in ſixe or ſeven fathom, there it is good lying for all windes, as well for them that are bound to the eaſtwardes, as to the weſtwards. He that ſhall be to the northwards of Gotland, and ſhall gett a contrarie wind, may alſo ancker under the great Karell, but under the Little Karell is farre the beſt roade. Under the great Karell men may ancker, on the weſt and eaſt ſide, but on the north and ſouth ſide it is foule, therefore come no nearer it by night, then in eleven or twelve fathom. Betwixt the two Karels it is 13 and 14 fathom deep.

The Great Karel.

Litle Karel

About halfwayes betwixt the Karels & the ſouth end of Gotland, ſouthſoutheaſt from the Karell, lyeth the haven Boſwyke: thwarte of it runneth off a riffe, a good wayes from the ſhoar, come no nearer it then in ſeven or eight fathom. When you are thwarte of the aforeſayd ſouth poynt, about a halfe league from the land, and will ſayle alongſt to the northwards of Gotland, you muſt not ſail on more northerly then northweſt, as well for to avoid that riffe of Boſwyke, as for to ſayle a weather the Karels. Boſwyke

Three or four leagues n.w. from the Karel, lyeth the iland Reefholm, thwarte of it men doe runne into Weſtergorte: you may ſayle & anker round about it. A little to the northwards of it lyeth the high n. w. poynt of Gotland. Reefholm

Two leagues to the northwardes of the high poynt lyeth the towne Wiſbuy, about 7 leagues n. e. from the Karell. Men were wonte in old tyme to lye there behinde a greate head or Cheſt.

Wiſbuye hath beene in times paſt a famous marchant towne, where was wonte to be driven greate trade of marchandize VViſbuy

chandize, but is now through the will of God, altogether fallen down, and com to nothing. The Hance townes have a long time there held their ſtaple. The old Sea lawes were made there, and alſo the old famous Read-carde. Men may ſee yet to this day many old ruinous houſes of coſtly marble and hewen ſtones, whereby men may partly perceive and judge, what manner of ſtalteniſſe there hath beene.

From Wiſbuy the coaſt lyeth forth n. e. towards the end of Gotland about 9 leagues. But from the Karell to Gotſhe ſand, the courſe is n.e. one & twentie leagues: that is a little Iland, whereupon dwelleth no people, and ſtandeth full of trees: you may ſayle round abound it, which hath a white ſtrand. From the n.w. poynt there of ſhooteth off a little riff, & likewiſe one from the ſouth poynt, a good wayes off into ſea, towards the north ende of Gotland. On everie ſide of Gotſche ſand, you may ancker in 6, 7, 8, 9, 10 and 12 fathom, all clean and good ancker ground, but theſe foreſayd riffes you muſt avoide. It lyeth n.n.e. 7 leagues diſtant from Faro, the north end of Gotland, when you lye there under it at ancker, you cannot ſee Gotland.

The Copper ſtone lyeth from Gotſche ſand w. n. w. and n. w. & by w. diſtant three great leagues.

Upon the ſouth end of the eaſt ſide of Gotland ſtandeth a high towre, called Howbrough, & thereafter the ſouth end of Gotland alſo is called Howbrough. By it goeth in a little river, before which you may ancker in 6 or 7 fathom.

Five leagues n. e. from the aforeſaid ſouth poynt lyeth Heyligh-holm, which is a good Haven; but by reaſon it is but little uſed, it is therefore alſo but little knowne.

Two leagues to the eaſtwardes of Heyligh-holme lyeth the Haven of Narwyck, upon the eaſt ſide of the Haven lyeth a long rock, by which you muſt runne in, and leave another ſharp rock on the larboard ſide, within the Haven you may ancker in 4 or 5 fathom.

Two leagues to the eaſtwards of it lyeth Sandwyk which is a good Haven for a weſt, northweſt, north, eaſt, & ſouth-eaſt wind, and lyeth in about north, a ſout winde bloweth there open in: On the eaſt point, (which is a low bare point) lyeth a Holme, which is faſt to the land, upon it ſtandeth a Warder: From this point runneth off a little ſandriffe, which you may ſound about in five or ſixe fathom. Within at this Holm is a bridge of Maſts which lyeth off a little from the ſhoare. If you will ancker there in the Haven, then run in a longſt by the eaſt ſhoare, untill you com within the bridge, & Ancker there neareſt the eaſt ſhoar, ſo that the foreſaid eaſt point doe ſtand ſoutheaſt, or ſoutheaſt & by ſouth frō you, in 4 fathom, 4 & an half, or five fathō, there is cleane clay ſand ground, & verie good lying for weſt, north & eaſt windes.

Eaſtergore. A league to the eaſtwards of Sandwycke lyeth the Iland of Eaſtergore, aboute halfe wayes betwixt both the ends of Gotland n.e. from the ſ.w. poynt, this is a bare Iland, without trees. Under this Iland is verie good roade for all winds, as well for them that are bound to the eaſtwards, as to the weſtwards. Comming from the weſtwardes, or from Sandwyke alongſt by the land, then is the n.w. poynt, (which is a high bare graye poynt) hidden behinde a poynt of the main land of Gotland, ſo that it ſeemeth a farr off to be no iland, but comming neare it, it openeth it ſelf, that you may ſee large enough through betwixt them: ſayle in there betwixt them both, in the middeſt of the chanel, it is there cleane & clear, but ſomwhat uneven of ground, to wete, 8, 10. 12 & 14 fathom, but you neede not to feare. If you will anker under it for n. e. or e. winds, then ancker betwixt the land and the Iland, ſo that the aforeſayd bare gray northweſt poynt ſtand north, & the ſouthermoſt eaſt from you, in nine or ten fathom. Or if you will ancker for a ſouth, ſouthweſt, or w. wind, then run further in about by that aforeſayd bare gray poynt, bring it ſouthſouthweſt from you, and ancker there in ſeven, eight, nine or ten fathom, there it is clean ground of ſmall white and black ſand. A little to the northwards of the Iland is a great Bay on Godtland, there you may alſo anker in 7 & 8 fathom, for weſterlie windes.

If you will ſail in or out, to the northwards of Eaſtergore then com not verie near the Iland, becauſe there lyeth off a riffe from the eaſt point farre into the ſea, which is a great half league without the land, not deeper then 2 fathom & a half, ſtonie & verie uneven, and is to be thought, that nearer to the land it is ſhoulder & fowler. From the ſoutheaſt ſide runneth off alſo a flat, a good wayes to ſeawardes, at ſome places not deeper then 3, 4, & 5 fathom, and alſo verie uneven, whereof you muſt take heed.

Foure leagues north & by eaſt from Eaſtergore lyeth a Haven, called Sliet or Sliet haven, lying in north & north & by weſt behind ſom little Ilands, there it is good lying for eaſterly, weſterly & north winds. Upon one of the northermuſt little Ilands ſtandeth a ruinous church. You muſt com in there alongſt by the ſhoare from the ſouthwards. From thence to Faroſound the coaſt lyeth north and by weſt two leagues.

Faroſound you may run into, in two & 3 fathom water, there ſtandeth a Church with a flatte ſteeple upon the land. From Faroſound lyeth off a foule dangerours riffe, a league & half or 2 leagues into ſea, called Salfonteyn, you muſt take verie good heed thereof, when you will runne about to the northwards of Gotland.

From Faroſound to Gotſcheſand, the courſe is northnortheaſt about 7 leagues.

A halfe league to the northwards of the towne Calmer, to wit, a little to the northwards of the road, lyeth an Iland, called Skalloe, which you muſt leave on the ſtarboard ſide, when you are bound from Calmer to the northwards: It is in different clean upon the w. ſide, but from the Sweedsſide there over againſt it runneth off a ſtone rif, almoſt unto the Iland. Upon this riffe ſtandeth commonly a ſtone-beacon: it is dangerous to ſaile through there, or over that ſhowld, for one that is not there very well acquainted: It is alſo Pilots water. Skallo.

Foure leagues to the northwardes of the Calmer, on the Sweeds ſide, lyeth an out-point, called Schenknes, or Skeggenes, thwart of it lyeth a ſmall Iland, called the Baker; betwixt this point and Skallo it is very uneven of depths. Skeggenes. The Baker

About two leagues more northerly over againſt it, on Oeland lyeth Borckholm, a little to the northwards of it lyeth Copingwyke, where men doe lade many Toombſtones, and other ſtones, with a northerly wind, it is bad lying there. Borcholm Copingwyke.

Northweſt or ſomewhat weſterly from Borckholm about 3 leagues on the Sweeds-ſide, lyeth a Haven in the rockes, where men doe lade Beames, to the northwardes of it, n.w. & by n. from Borckholm lyeth Munſteraas, that is a good Haven alſo for very great ſhipps. Munſteraas.

From Calmer to the Sweeds-loufer, the courſe is northnortheaſt nine or ten leagues, this is a rounde rock, and very high, you may ſee it alongſt over Oeland, being a good wayes to the eaſtwards of Oeland, it is not very great, but clean round about, ſo that you may ancker neare under it on every ſide in eighteene and nineteene fathom, but by reaſon that it is not broad, there commeth in (with hard winds) a rowling ſea. Sweeds loufer.

From the Sweeds loufer to the channell of Weſterwyke, or Silbuy, the courſe is northnorthweſt 8 leagues, but from Northeroorden the north-end of Oeland northweſt nine leagues.

The channell of Weſterwyke and Silbuye is called Ideſound, after a great rock lying on the north ſide of this channell, called Ydehoe, off from it lye many rocks, ſome about & ſome under water two great leagues to ſeawards, which are called the Idebancks. Idefound. Idebancks.

He that will ſaile from the north-end of Oeland towards the Barſound, and by bare windes doth come a little to the weſtwards, without the right farewaye, muſt be very carefull, and take good heed that he get not in amongſt them.

For to know the channell of Weſterwyke, you ſhall ſee a high bare rock, bring that north weſt from you, and ſayle ſo right in, & then you ſhall fall with the land right before it, & then alſo you ſhall eſpye another bare rocke, whereupon ſtandeth a Fiſhers beakon, and alſo another to the ſouthwards of it, with a maſt, ſayle in betwixt the 2 rockes, the channell lyeth in n. w. and n. w. & by n. when you are com

within them you may saile alongst through the rocks where you desire to be, to Silbuye, Stixholm, Flurbuy, Vrowenbergh, Westerwyke, up to the northwards to Schelsuyr and other places more, there it is all cleane ground, and 12, 15, 18, and 20 fathom deep.

Silbuy. If you be bound to Silbuye, then sayle up to the northwards or eastwards untill you come before the towne, and ancker there in the middest between the rockes in 7, 8 and 9 fathom.

Fleurbuy. If you be bound to Flourbuy, or Vrowen bergh, then sayle in west, & west & by north through the rocks till you come against the maine land, there you may ancker before Fleurbuy, or sayle up northwest betwixt the Iland of Vrowenbergh and the maine land, and ancker there in twelve fathom: also you may runne through that way untill you come to Westerwyke. Westerwyke lyeth from Silbuy through within the rocks west, & west and by north, there it is in the fareway 15 and 16 fathom deep.

VVesterwyke.

Frō Silbuy to Schelsuyr it is northnorthwest 7 leagues, all alongst through within the rocks. Schelsuyr is a good havē, there lyeth a rock in the havens mouth, about which you may runne in on both sides, and ancker before the towne.

Schelsuyr.

To the eastwards of Schelsuyr lyeth the Hondtsbay and the Green Iland, there it is also good anckering. You may run from Silbuy alongst by it untill you come in the Sound of Southercoppen and Northcoppen.

hondsbay Green Iland.

From the channell of Westerwyke to the Barsound, the coast lyeth alongst by the rocks north and by east eight leagues. But from the north end of Oeland to the Barsound the course is north and by west 16 leagues, go not more westerly, that you get not into the sunken rocks & fowle grounds of the Idebanks.

The north end of Oeland runneth somewhat farre off flat. If you runne out close by Oeland, and saile on north and by west, then you run alongst farre enough without the Idebanks, and so shall fall with the land about a halfe league to the southwardes of Barsound against a deale of low out-rockes. It seemeth a farre of, by reason of the multitude of rocks and little Ilands to be all firm land, but comming neare it, it is all broken. You shall see there also an iland by which there seemeth to be a channell, but you must be further to the northwards, runne alongst by the coast in 7 fathom, so long untill that you see out a head high out-rocks, these shall be the Heerscharen, which are very fowle, & lye off from the north poynt of the channell, a good wayes eastsoutheast into sea, all which you must leave on the starboard side, and runne alongst by them unto the channell.

Barsound.

Heerscharen.

When as you com out of the sea, you must take very good heed that you fall not with the land to the northwards of the channell, that you doe not get into the foresayd Heerscharen. When you come before the channell, you shall see two Sounds or goings in, the southermost seemeth to be the broadest and fairest, but the northermost is farre the best, and lyeth in northnorthwest.

On the n. side of the channell lyeth a great rock with a beakon upō it, and somewhat more to the northwards sheweth a round hill, by al which marks this channell is very good to be known. when you are right before the norther channell, and doe see open into it, then sayle in northnorthwest; being come in about a shot of a cast peece you shall see on the larboard side two little low Ilands, ancker within them in seventeene or eighteene fathome, there you must hire a Pylot to bring you up, either to Southercoppē or Northercoppen, where you desire to be, it is Pylos water. It is from thence to Southercoppen about ten leagues, but to Northercoppen 18 leagues. In the comming in of the Sound is good ancker-ground in 10 fathom. Within in the Sound it is broad and wide, and all over good ankering in 18 and 20 fathom.

Talder-sound. About an Englisch mile within the Sound, you leave (in sailing up) the Talder-sound on the larboard side, there is no more then 6 or 7 foot water, from thence you edge up north, & also northeast a half league, then again west and by south about two leagues, afterwards westnorthwest a league unto Karholm, which is a Gentlemans house with a mill.

Karholm. Fom Karholm to Stickbrough it is further west about 2 leagues, that is a castle upon a little Iland, you must goe about to the southwards of it through a bridge.

Stickbr. From Stickbrough saile up alongst the Sound, and leave most of all the rocks (which you see) on the larboard side, except one or two a little aboue Stickbrough, leave them on the starboard side. About two leagues past Stickborgh standeth a g ntlemans house called Mem, there is the place where men doe lade, a halfe league from Southercopping.

For to saile from without the Northercopping, you must run in by the Swartboden up westwards unto Schenes and Braburch & alongst unto the Brawyke the sound of Northcopping, or els you must come in at the Barsound through within the rocks into the Brawyke unto Northercopping, but it is not to be done without a Pilot for them that are not there very well acquainted, for it is Pilots water.

Brawyke.

From the north end of Oeland to the channell Nycopping by the Hevering, the course is due north about 12 leagues, but if you run close alongst by the end of Oeland, you shall fall with the land a little to the westwards of the Hevering, The Hevering is a great reddish bare rock, whereupon stand 3 or 4 Fishers beacons, heretofore there was wont to stand upon it a barrell upon a mast, which men might see farre off at sea, but it is taken off in the last warres between the Kings of Sweden and Denmark, now there standeth nothing upon it but some Warders.

Hevering.

Two great leagues to the westwards of the Hevering, to wit, westsoutwest from it, lye the foresaid rockes called the Swartboden, which are great rocks, and are sometimes mistaken for the Hevering, you may saile in also by these Swartboden, and run through within Oxelen and the other rocks, and come by the poynt of the Hommelwyke into the right sound of Nycoppen.

Swartboden.

When you come before the channell of the Hevering, you can at first hardly see a channell, or any opening, but bring the great rock the Hevering northwest from you, & saile so right in, & runne in close alongst to the northwards of it. In the sailing in you shall see two chanels, the northermost is within full of dangers, so that you cannot goe through there. The right channell by the Hevering is so narrow, that you can hardly turne to and againe there.

From the Hevering you must saile in first northwest a league and halfe, or two leagues, unto a great rock, leave it on the starboard side, and saile about by it, & goe in alongst northwest and by north. A little within the foresaid great rock, thwart of the poynt of the Hommelwyke, you shall find also a great rock on the starboard side, you may run about to the westwards of it untill you come within the other rocks and little Ilands, and ancker there in three fathom soft ground: but if you will ancker there, then you must shun somewhat the west end of the great Holm, because of a suncken rock that lyeth even without the poynt of the rock. From that foresaid roade unto Hassell-holm the course is yet in alongst northwest & north; but with shippes of great draught you must ancker before the channell of Hassell-holme. From the Hevering to the Hassell-holme it is in all about 3 or 4 leagues.

Homelwyke.

From Hassell-holm alongst upwards through the stone reach, it is not deeper then nine foote, you must also (if you will saile up there) first set the rockes, or suncken rockes with beakons with your boat, or else you should sometimes saile upon some of the rockes in 7 foot depth. The narrowest of the Stone-reach is thwart of an Iland which you must leave on the starboard side, off from which lyeth a sunken rock in the narrow, you must goe close alongst by the suncken rock, for to the westwards of it is very showld water. Being past this stony ground, you shall get oasie ground, where it is not deeper then sixe foot; being come over that by the town Nycopping, it is againe eight foot deep, but stony ground. The shippes lye without the towne thwart of the beakons over against the castle, which lyeth on the west side of the river.

Hassell-holm.

Stone reach.

Nycopping.

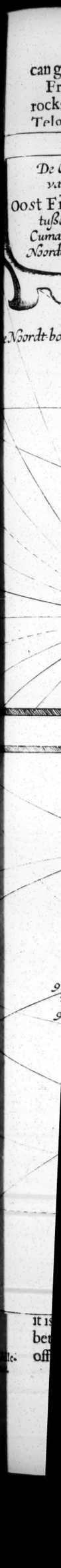
From Hassel-holm to the town Nycopping it is about a league first up north and by west, & afterwards west. For one that is unacquainted, it is not well to saile up, it is also Pilots water, so soone as you come within the channell, you can

Nycoppen
Vaert na Tryla
Troſa
Landſoort
Haſſel: holm
Herſhac
t gat van Nycoppen
Hevering
Brauwyck oſte voerd
na Noord Coppen
D E N
Suyder Coppen
Swarboden
Stockborgh
Karlholm
Hondsbay
Groen Eylant
Barſondt
Herſchaeren
Schelſyyr
38
36
7
6
20
10
9
20
7
8
12
15
5
16
12
20
15
Silbuy
I. delhamcken
I. dehoe
t gat van Weſterwyck
Weſterwyck
I. Vrou wenbergh
12
15
10
Fluierbuy
5
30
50
30
Cleine Karel
Groote Karel
20
14
12
18
16
Gotlant
25
5
6
Stockholm
S W E
Sweedſche Lonſſers
Noordtroorden
50
Munſteraas
Copingwyck
Schenckenes
De Backer
Borcholt
Skullee
O E L A N D T
Calmar
De Cuſten van Sweden tuſſchen Calmer en Landſoort t gat van Stocholm.
1 2 3 4 5 6
Duytſche mylen 15 in een graedt
1 2 3 4 5 6 7
Spaanſche mylen 17½ in een Graadt
1 2 3 4 5 6 7 8
Eng. en Fr. mylen 20 in een Graadt

Caarte
van't
Stocholmse
Liet.

Stocholm
Lyfftholm
Rasdholm
Mogsholm
Wisterreede
Ste Sege
Stegeness
Stocsund
Wisterholm
Winterholm
Dijcken vanden
na de Noordhoek
Dijc van
Duerhaven
Borcha
ven
Derhoecken
Galge
Willem van
de Wyks hoec
Compens
haven
Dreyboom
Cruyshaven
Radhaven
Raehaven
De Lange steck
Kymuts
Eylant Stezendour
Dalar
Soufsark
Groote dalar
Raedholm
Roopholm
Hoogs landt
van Elsnas
Elsnas
Rookoe
Ramskloof
Damsicker gat
Middelsteen
Gomberghsteen
Schaermoopen
Wigsteen
Landsort
Jonge Carnasse
Carnasen
Heirhamer

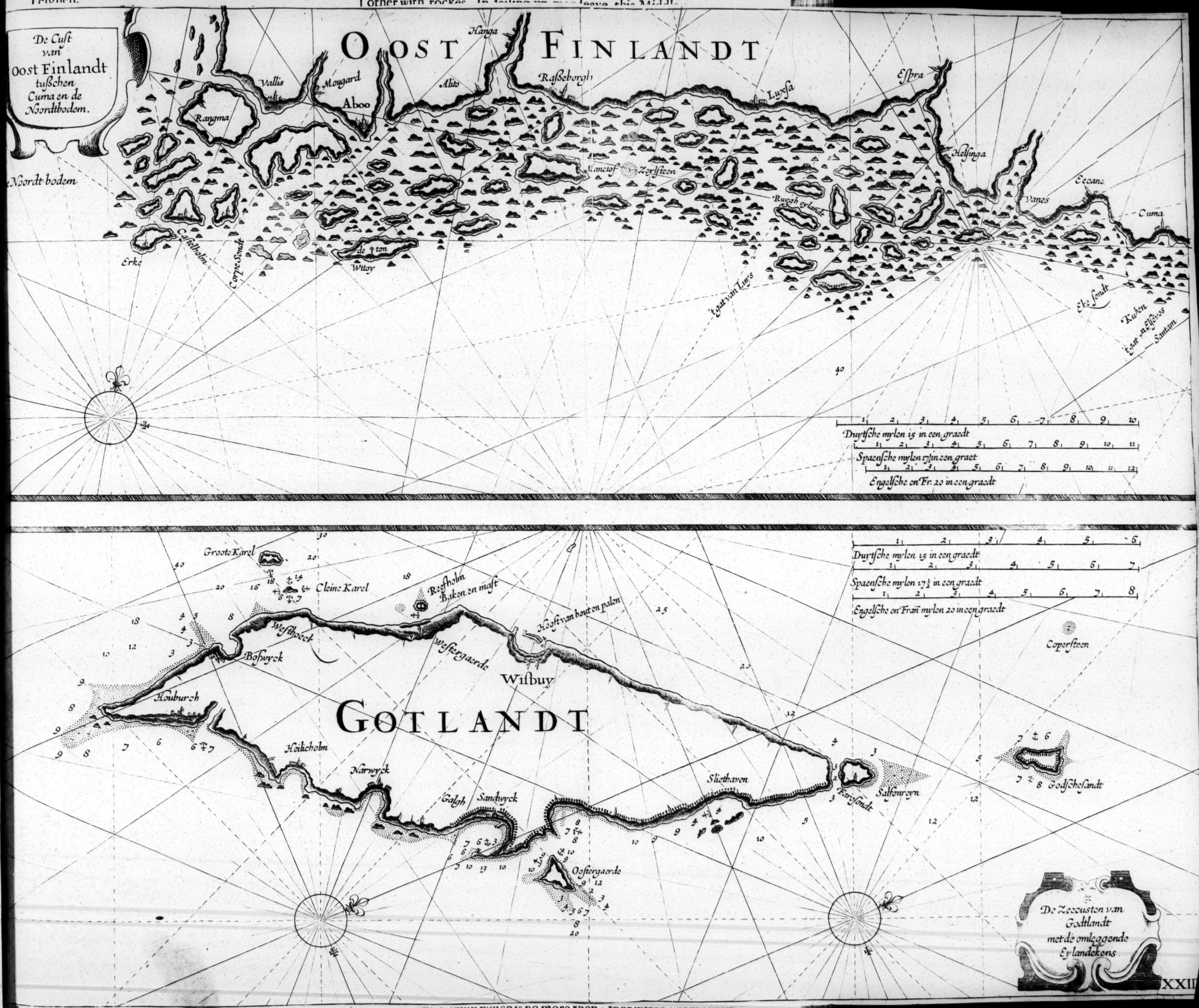
Duytsche mylen 15 in een Graat
Spaansche mylen 17 ¾ in een Graadt
Engelsche en Fr. mylen 20 in een Graadt



can get a Pilot to bring you where you deſire to be.

From Nicopping you may ſayle alongſt through the rocks to the northwards of Haſſel-holm unto Troſa and Telghen.

ſtone, which is a great high rock with a great cliff or ſadle, with another great rock a little to the weſtwards of it : you cannot ſaile through betwixt them, they are faſt one to the other with rockes. In ſailing [illegible] leave this Middl-



it is cleane round about, but on the weſt ſide it is narrower, betwixt it and the land lyeth alſo a rock, with a little rock off from it, which you muſt avoid.

A league northeaſt from the Wigſtone lyeth the Middle

the Saltrack, upon which is no more then 9 foot water. From Saltrack. the great Daler the courſe is alongſt n. eaſt a half league unto the little Daler, which is a high ſteep rock, the higheſt that you find amongſt all the rocks in the Liet, Little Daler.

can get
Fro
rocks
Telgh
Lan
holm)
league
Abo
very g
alone
Landf
hamen
east,
ving it
alſo ſa
alſo or
The
and by
you n
lyeth
rockx
ſhoare
mouth
mouth
A li
Deep,
unto S
A li
Telgh
Melle
mouth
Abo
foort,
rocke
comm
and fa
Landf
theſe
them
you n
betwix
Lan
weſt &
twent
north
Landf
fall wi
the ea
known
whē as
holm
northe
you sh
good
Th
of La
black
Karwa
the K
great,
poynt
Stock
which
to the
the W
from
homm
like a
it ſtan
eaſtw
may
it is c
betwi
off fr
A

can get a Pilot to bring you where you deſire to be.

From Nicopping you may ſayle alongſt through the rocks to the northwards of Haſſel-holm unto Troſa and Telghen.

ndſoort. Landeſoort (which is the weſt poynt of the Liet of Stockholm) lyeth from the Hevering eaſtnortheaſt diſtant 7 or 8 leagues.

About halfe wayes betwixt both lyeth a great high rock very good to be knowne, a good wayes without the land alone called Hartſoe, and a little league to the weſtwards of Landſoort lye alſo ſome fowle out-rockes called the Heyrhamer. When as you ſail from the Hevering on eaſtnortheaſt, then you run alongſt a little without the Hartſoe, leaving it on the larboard ſide. With that courſe, you cannot alſo ſaile too neere the Heyrhamer, & then you leave it lying alſo on the larboard ſide towards the land.

The land to the weſtwardes of Landſoort lies weſt, or weſt and by ſouth, with divers great rockes and havens where you may ſaile into. About a league to the weſtwards of it lyeth a haven within a low rock in betwixt two other low rockx, there you muſt make you faſt with kables on both ſhoares, and with an ancker in the Sound. Before the havens mouth lyeth a high round rock, which ſhutteth the havens mouth.

A little to the weſtwards of Hartſoe goeth in a haven or Deep, where you may run through with Barkes within Elſnap unto Stockholm.

A little to the weſtwards of that Deep lyeth the Sound of Telghen lying in northweſt, almoſt unto the great Lack de Meller, upon the end of that Sound lyeth Telghen, but at the mouth of the Sound lyeth the little towne Torſa.

About an Engliſh mile ſouthweſt from the poynt of Landſoort, lye two rockes even with the water, & within theſe rockes cloſe by Landſoort lyeth alſo a ſunken rock. He that commeth from the ſouthwardes, being bound to Stockholm, and falleth with the land to the weſtwards of the poynt of Landſoort, muſt take heed of them; you may ſaile within theſe two rockes (lying even with the water) to wit, betwixt them and the foreſaid ſuncken rock, & alſo (as the Pilots ſay) you may ſaile through within the ſuncken rock, that is, betwixt the ſuncken rock and the mayne land.

Landſoort & the north poynt of Oeland lie ſouthſouthweſt & northnortheaſt diſtant three and twenty or foure & twenty leagues. If you ſaile on northnortheaſt from the north end of Oeland, you ſhall fall with the land right with Landſoort, or a little to the eaſtwards of it. It is better to fall with the land ſomewhat to the weſtwards of it, then to the eaſtwards of it, to the weſtwards the land is better to be knowne then the rockes to the eaſtwards of it. Therefore whē as you will ſaile from the north end of Oeland to Stockholm, eſpecially in dark wether, go on ſomewhat more northerly then northnortheaſt, or north and by eaſt, & then you ſhal runne ſight of the foreſaid rock Hartſoe, which is good to be knowne.

The Liet of ſtockholme goeth in northeaſt by the point of Landſort. About a league eaſt from the poynt ly ſome black rocks, ſome above and ſome under water, called the Karwaſen. Betwixt them & the poynt, about once ſo neare the Karwaſen, as the poynt, lyeth an other black rock, not great, called the yong Karwaſen, betwixt that rock and the poynt of Landſoort, men doe ſayle into the channell of Stockholm. Cloſe to the poynt lyeth alſo a little Iland which you muſt leave on the larboard ſide, and run alongſt to the eaſtwards of it, a league northeaſt from the point lyeth
Vigſtone the Wigſtone, lying ſoutheaſt or eaſtſoutheaſt thwart off from the ſhore. This is ſomewhat a long rock with three hommocks, the two weſtermoſt are the greateſt, and ſhew like a ſaddle, the eaſtermoſt hommock is the ſmalleſt, upon it ſtandeth a little walled cape, you muſt ſayle alongſt to the eaſtwards of it, and leave the rock on the larboard ſide. You may well ſail alſo about to the weſtwards of this Wigſtone, it is cleane round about, but on the weſt ſide it is narroweſt, betwixt it and the land lyeth alſo a rock, with a little rock off from it, which you muſt avoid.

idle- A league northeaſt from the Wigſtone lyeth the Middle ſtone, which is a great high rock with a great cliff or ſadle, with another great rock a little to the weſtwards of it: you cannot ſaile through betwixt them, they are faſt one to the other with rockes. In ſailing up men leave this Middleſtone on the ſtarboard ſide, and run about to the weſtwards of it.

From by eaſt the Wigſtone to the Middleſtone, to wit, alongſt to the weſtwards of it, the courſe is northnortheaſt. About a great Engliſh mile eaſt from the Wigſtone, & north from the Karwaſen lieth another rock called the Gombergſtone, and to the eaſtwards of it another called Gombergh ſtone.
Schaeropen. When you ſaile from the Wigſtone to the Middleſtone, you leave them both on the ſtarboard ſide.

Thwart of the Middleſtone, on the Weſtland lyeth the havē of Ramskloof, there you may anker within the rocks. Ramskloof.
The Middleſtone lyeth about a half league ſ. w. from the eaſt poynt of the Liet, to wit, from the eaſt poynt of the main land, or the Swedes ſchares, betwixt them both goeth in a channel called the Danske channel. For to ſaile in there Danskechannell.
you muſt avoid the foreſaid eaſt poynt a good wayes off (whereupon ſtandeth a mill) & run in by the Middleſtone, for from that poynt runneth off a great ledge of rocks a good wayes to ſeawards, towards the Middleſtone. From by weſt the Middleſtone to Elſnap the courſe is n. e. three lea.

When you are a little paſt the Middleſtone, you come in betwixt the two lands, and a little within the eaſt poynt you ſhall meet with a rock in the fare-way called the Red Cow. You may ſaile about it on both ſides, but men leave it Red cow.
commonly on the ſtarboard ſide, within that rock, that is on the north ſide you may anker.

Elſnap is a havē behinde 2 little Ilands, where the Kings Elsnap.
ſhips of wart do comonly lye to tarry for a winde, when they are bound to ſea, there it is very good lying, when with contrary windes you can neither get up nor down, you can come in & out there both from the northwards & from the ſouthwards very conveniently. Coming from the ſouthwards you can ſee over the ſouthermoſt little Iland, the maſts of the ſhips that lie behind it. For to ſaile in there behind it, run in about by the ſouth poynt of the Iland Elſnap behind it, & thē you leave a litle black rock on the ſ. ſide of the havens mouth, lying on the larboard ſide. Betwixt the 2 little Ilands of Elſnap runnes alſo a channel through where you may go through with Huyes & ſmal ſhips. From thwart of Elſnap the courſe is inwards n. n. e. about 2 leagues, to the Red-holm, that is a great red round rock grown full of trees, to the eaſtwardes of it lyeth another ſmaller bare rock, the fareway is there in through betwixt them, and a- Redholm.
bout a musket shot broad. In this narrow it is all over good ancker-ground. From the north end of the Redholm lyeth off a great row of rocks unto the eaſt shore of the Lieth, where you muſt ſaile through. When as you ſaile through betwixt the Redholm & the foreſaid bare rock to the eaſtwards of it, go then on yet about an English mile further n. n.e. until you come thwart of the fourth channell to tell off from the Red-holm which lyeth through the foreſaid row of rockes to the northwards of the Redholm, that is called S. Iohns. chanell, it lyeth through about n. n. weſt or S. Iohns.
ſomewhat more northerly, it is a short Inlet, run through channel.
there. Being through S. Johns channell, go again n. n. e. about an English mile to the Redholm, which is a long rock upon it ſtand 3 barrels upon maſts, this you muſt leave on the larbord ſide, & run alongſt to the eaſtwards of it. From the north poynt of that Redholme runneth of a little riffe Redholm
or showld, which you muſt avoid. From the Redholm unto the great Daler the courſe is. n. w. and by north, that is a Great Daler.
haven on the weſt ſide of the Liet, there lyeth a churchyard within on the land, where the ſlain Poles people in the laſt Polish wars lye buried. Thwart of that Churchyard is a ſandbay, there is good anker-ground, like as is all over in that foreſayd haven. At the north poynt of the haven the great Daler lyeth a ſuncken rock cloſe by the land, called the Saltſack, upon which is no more then 9 foot water. From Saltſach.
the great Daler the courſe is alongſt n. eaſt a half league unto the little Daler, which is a high ſteep rock, the Little Dahigheſt that you find amongſt all the rocks in the Liet, ler.

run alongſt to the weſtwards of it, and leave it on the ſtarboard ſide. Over againſt it on the weſt ſide lyeth another rock, which is called alſo the Daler, to the weſtwards of it, to wit, betwixt that rock and the main land, is alſo an opening, where you may ſail through. A little within that foreſaid rock on the weſtland goeth in rhe Hardſtick which is a Hartſtick. Sound that lyeth in firſt weſt, and weſt and by north, a good waies in, and then n.w.& cometh into the Lieth to the northwards of Waxholm, by Kingshaven. The Kings Majeſty hath cauſed to ſink ſome ships in the mouth of the Steendeur Sound, ſo that men cannot goe through there with great ships, but onely with little barks. From the little Daler the courſe is n.n.w. about a half league to Steendeur, a great Iland, which you muſt leave on the ſtarboard ſide, and run cloſe along by it, and ſo you shal leave a round rock to the ſouthwards over againſt it on the larboard ſide, and ſayle through betwixt them: this channell lyeth through n. w. At the weſt end of the great Iland Steendeur lyeth a little black rock, you muſt run about by it again to the eaſtwards.

Kowhaven. From Steendeur to Kow-haven the courſe is e. n. e. two leagues, that is a rock lying in the broad Sound, leave it on the ſtarboard ſide, and ſail to the weſtwards of it alongſt by the weſt land unto Berckhaven. Betwixt both about half wayes lieth a haven called the Croſſe-haven, there it is good lying for weſt & northweſt wind.

Berkhaven. Berkhaven lyeth from Cow-haven n. e. & by north diſtant about two leagues: this is a haven betwixt two Ilands where is good ankering for all wind, as wel for them which come from Stockholm, and deſire to ſaile to the Northbodem, as alſo for them that will ſaile off towards Landſoort, there is (like as at moſt places betwixt the rocks & Ilands) good clay ground. When you come from Kow-haven, and are bound to Stockholm, you muſt leave theſe two ilands of Berckhaven on the ſtarboard ſide, and run in about betwixt them and the point of the maine land. From the narrow betwixt Berckhaven and the foreſaid poynt to Duerhaven, the courſe is n.w. about a halfe league. On the ſ. w. ſide of that Duerhaven fareway thwart of the poynt over againſt Duerhaven, lye two ſunken rocks on each ſide of the poynt one, the one on the n. w. ſide, and the other on the ſ. e. ſide, commonly there ſtandeth upon each of them a little tree for a beakon.

Draybom. From the poynt of Duerhaven unto the Draybome the courſe is ſ. w. and by weſt ſomewhat weſterly about a half league, it is called alſo the Duerhaven, off from the poynt within the Ilands untill you come before the buye, alongſt there, & alſo within the Ilands, it is good lying every where.

The little Ilands which lye in the channell of the Draybome, you muſt leave them on the ſtarboard ſide of you.

VVind-ſtream. From the Draybome to the Windſtream the courſe is firſt north, & north & by weſt untill about half wayes, there you shall find a litle Iland with a little tree, leave that on the larboard ſide, and goe from thence in n. n. w to the Windſtream. In the Windſtreã is good anckering by the shore, except in the n. end of the ſtreã, there is no anker ground Frõ the Draybome to the windſtreã it is about a league diſtãce.

The Seugh. From the Windſtreame to the Seugh the courſe is w. n. w. a half league, that is a chindle or ſtone-banck even with the water, runne alongſt to the northwards of it, and leave it on the larboard.

Scheggen From the Seugh to Scheggen the courſe is weſt and by north a league, run alongſt there by the ſouth shore. When you come againſt Scheggen, you shall ſee upon the poynt of the ſouth shore a little round tree, over againſt that little tree ſomewhat more northerly then in the middle of the channell, lyeth a ſuncken rock, for to avoid it you muſt run neareſt the ſouth shore. The reach of Schegghen lyeth through weſt, and weſt and by ſouth about an English mile, it is narrow, but hath every where ancker ground.

Steck-holm. From Scheggen the courſe is w. ſ. w. an English mile to Steckſound, or weſt to Kingsdeep, the little Ilands on the ſtarboard ſide, as you ſaile to Steckſound, are cleane round about, ſo that you may goe on all ſides about by them.

Comming cloſe to ſteckſound you shall finde a ſuncken rocke a little by ſouth the fareway. The Steckſound lyeth through ſ. ſouthweſt, it is a short Inlet about a cables length long.

From Steckſound unto Waxholm it is ſ. w. weſterly about an English mile. Upon Waxholm ſtandeth the kings caſtle, there all the ships are viſited whether they go up or down, the channell there by it, is paled too ſo neare, that they can shut it with a boam. VVax-holm.

From Waxholm to the Weſter reach the courſe is w. ſ. w. and through the Weſter reach ſouthweſt. From thence alongſt weſt to Eeldam, that is a very narrow channel a litle more then a ships length broad. VVeſter-reach.

From Eeldam the courſe is weſt to Mouſeholm, which is about a league from wayholm, men leave the high rough Mouſe-holm on the ſtarboard ſide, and run alongſt by it to the ſouthwards. Eeldam.

From the Mouſe-holm to Kingshaven it is a league weſt, and weſt & by north all alongſt by the ſouthland. Mouſe-holm.

From Kingshaven unto the town Stockholme the courſe is northweſt, & northweſt and by weſt alſo a league diſtance along by the shoare. When you come before the towne, you may ancker where you pleaſe. Kings-haven.

He that falleth to leewards, or by any other accident cannot come by Landſoort into the Liet of Stocholm, he may ſail in more to the northwards through divers channels. Amongſt others there is one where men may ſaile into, and come by the great Daler into the Liet: there goeth another in by the Swedes ſand, through it men come by Berckhaven into the Liet. The knowledge of this channell is a very high rock, with another that is not ſo high, thereby to the ſouthwards of it, betwixt theſe two rocks goeth in this channell, it is very narrow in the comming in, not above two ſhippes lengths broad. So ſoon as you come in within theſe rocks, you may edge up about by the loweſt, which is the ſouthermoſt, and ancker under it in very good ancker-ground. Stock-holm.

From that road in the Swedes ſands the Sound goeth up firſt about n. w. & by north, & n. w. 5 leagues unto Berker-havẽ into the Liet of Stockholm. This is a very good channell as wel for to ſaile in as out, but becauſe it is not eaſie to know, comming in out of the ſea, it is ſeldom uſed.

To the ſouthwards or the weſtwards of theſe two foreſaid rocks, at the comming in of this channell, it is all low land. If you come from the ſouthwards, and run alongſt by that low land, ſo long untill that you begin to get the high land, you shall alſo run in ſight of theſe two foreſaid hommocks. About a league to ſeawards from them, lye 3 or 4 ſmall rocks; for to ſaile in there you muſt leave them on the ſtarboard ſide, and in ſailing out on the larbord ſide.

Of the Depths and groundes about theſe coaſtes.

Betwixt the ſouth endes of Oelandt and Gotland in the farewaie, it is uneven for to ſound, ſometimes men have two and twentie, three & twentie, and ſometimes againe eight and twentie, nine and twentie, and thirtie fathome, all black mingled ground, ſomtimes ſtones ſo great as peaſe, of coullour like black earth.

When Howbrough is northnortheaſt ſeven leagues from you, there it is 15 fathome deepe, ſtonie grounde, from thence on northeaſt two leagues, there it is twentie fathom deepe, foule ſtonie ground. Neare about theſe places, ſo far from land that you cannot ſee Gotland, are bancks, where it is not deeper then twelve fathome. The like uneven grounds are alſo thwarte of the ſouth ende of Oeland, as hath beene ſaide in the former, but betwixte them both is deeper water. If you come in the farewaie from Rye to Bronthollom betwixt the ſouth endes of Gotland and Oeland, and muſt lye by with contrarie windes, when you are in the tenne or twelve fathome, and then ſaile towards Oeland, you shall get deeper water.

If you lye by betwixt Oeland and Reefcoll, and that Reefcoll come to be ſouthſoutheaſt and ſouth and by eaſt from you, ſo farre without the land, that you cannot ſee it, then you shall get alſo the like uneven grounde of tenne & twelve fathome, redde groſſe ſtonie ſand, and alſo blackish groſſe ſandie ſtone grounde; If you be neareſt to Oeland, you shall get, in tenne or twelve fathome pittes in the tallowe, ſoo that it ſeemeth, that thoſe grounds of Oeland doe run over unto, or neare Reefcoll. The like grounds & uneve-

vneveneſſe doe ſeeme to lye over the ſea alſo from the ſouth ende of Gotland towardes Roſehead: for when the ſouth ende of Gotland commeth to be aboute north from you, although it be fourteene or ſixteene leagues from you, you ſhal finde depth of ſixteen and twentie fathome ſoft grounde, like as off from Oeland, but if Gotland be more eaſterly or weſterly from you, you ſhall have deeper water.

When you are aboute a league by weſt the ſouthweſt poynt of Gotland, ſo that it be ſoutheaſt, or eaſtſoutheaſt from you aboute a league, then the Karels lye about north from you, which you may even ſee in cleare weather, thereaboutes it is ſhoulde water a good wayes off from the ſhoare. When the weſt poynte or ſteepe poynte is aboute north from you a litle to the eaſtwards or to the weſtwards of it, there is tenne, twelve, fourteene, ſixteene and eighteene fathom deepe, a greate waies from the land: but when that poynt commeth to be northeaſt, eaſtnortheaſt, or eaſt from you, there it is aboue the fortie fathome deepe.

Betwixt the ſouthweſt poynt of Gotland, and the north poynte of Oeland it is alſo verie deepe, ſo that there you can not caſt ground with fortie fathome.

When you are northweſt and northweſt and by north aboute two leagues from Houbrough, there you have great redde ſtone ſand, & black ſtones in it, ſo great as beanes.

Betwixt Gotland & the Sweeds ſchares in the farewaye it is four and thirtie, ſixe and thirtie, & eight and thirtie fathome deepe, & cloſe by Gotland five and twentie fathom.

When the tower of Houbrough is weſtnorthweſt from you, ſo farre as you may ſee it from the poope, there it is thirtie and one and thirtie fathome deepe, but being northnorthweſt from you it is shoulder, five and twentie & ſixe and twentie fathome.

Betwixt Howbrough and Eaſtergore lyeth a banck of four and twentie fathome, groſſe redde ſand, ſo farre without the land, that you cannot ſee the land out the top. To the eaſtwards of it lyeth another banck of fourteen fathom gray and white ſand, when you are over it, you shal have no ground in fortie fathome.

Two leagues without the land, by weſt Eaſtergore, there it is aboute one & thirtie fathom ſoft ground.

He that ſaileth from Bronthollom alongſt by Oeland towards Eaſtergore, let him not ſpare his lead, but ſound often for theſe aforeſayd bancks and groundes; thereby you may well make ſome reckoning.

If you should make reckoning to come by night with Gotland on the ſoutheaſt ſide, & have no good ſicht, then come no nearer the land (aboute the north ende or ſouth ende, and alſo by Eaſtergore) then in twentie or foure and twentie fathome, and ſo you can take no hurte by night. By day you may come neare enough to it at many places, in ſeven, eight or tenne fathome.

How theſe lands doe lye one from the other, and from other lands.

From Houbrough to Eaſtergore n. e. 12 or 13 leagues.
From Eaſtergore to Faroſound north and by eaſt 7 leag.
From Faroſound to Gotſche ſand n. n. e. and north and by eaſt 6 or 7 leagues.
From Houbrough to the Karels n. n. weſt 7 leagues.
From the Karels to Wisbuy n. e. 7 leagues.
From the Karels to Gotſche ſand northeaſt 21 leagues.
From Houbrough to the north ende of Oeland northweſt 12 leagues.
From the Karels to the Sweedes Ionckvrow weſt and by north 13 leagues.
From the Karels to the channell of Stockholme north 21 leagues.
From the Karels to Boechſchaer northeaſt 40 leagues.
From Gotſcheſand to Boechſchaer north & by eaſt 20 or 21 leagues.
From Gotſche ſand to the ſouth poynt of the Alands haff north & by eaſt 33 or 34 leag.
From Gotſche ſand to Wttoy northeaſt 37 leagues.
From Gotſche ſand to Dagerorte eaſt and by north 7 leag.
From Gotſche ſand to Derwinde ſoutheaſt and by eaſt 31 or 32 leagues.
From Eaſtergore to Dagerorte northeaſt, and by eaſt 37 leagues.
From Eaſtergore to Derwinde eaſt & by ſouth 27 leagues.
From Eaſtergore to Quinsbrough deepe ſouth & by eaſt 50 leagues.
From Eaſtergore to Roſehead ſ. & by w. 45 leagues
From Houbrough to Hondſorte e.n.e. & n. e. & by eaſt 47 leagues.
From Houbrough to Lyſerorte eaſt & by north ſomewhat eaſterly 40 leagues
From Houbrough to Der Winde eaſt and by north 37 leag.
From Houbrough to Dermemel ſoutheaſt & by eaſt 40 leagues.
From Houbrough to Quinsbrough deep ſ. ſ. e. 48 leag.
From Houbrough to Roſehead ſouth 34 leag.
From the north end of Gotland to Derwinda eaſtſoutheaſt 29 leagues
From Calmer to Scheggenes northnortheaſt 4 leagues.
From Scheggenes to the Sweedes Joufer northnortheaſt 7 leagues.
From the Swedes Ioufer to Ideſound, the channell of Weſterwycke, or Silbuy, north and by weſt, ſomewhat weſterly 8 leagues.
From the Swedes Ioufer to Northeroorden, the north end of Oeland eaſt and by north 3 or 4 leag.
From Northeroorden to the chanell of Weſterwyke north weſt 9 leagues
From Northeroorden to the Barſound, n. & by w. 16 leag.
From Northeroorden to the Hevering, or the channell of Nycopping north 21 leagues.
From Northeroorden to Hartſoe north and by eaſt 23 leagues.
From Northeroorden to Landſoort north northeaſt 23 or 24 leagues.
From Hevering to Landſoort eaſtnortheaſt 7 or 8 leag.

How theſe Lands doe ſhew themſelves at ſea.

Thus ſheweth the weſt point, or northweſt point of Gotland, when you come from the ſouthwards.

When Gotſcheſand is northeaſt from you two leagues it ſheweth thus.

In this forme ſheweth the land a little to the weſtwards of Eaſtergore, when that point is a great league weſt from you, there it is four and twentie and five and twentie fathom deep ſoft ground.

Eaſtergore being a league weſt from you, sheweth thus, there it is five and twentie fathom deepe.

The ſecond Part

THE FIRST BOOKE

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

ſ contained the Deſcription of the Sea-coaſtes of Holland, Sealand, and Flanders, from Teſſell to the heades.

With Privilege of the high and Mighty Lords, the States Generall, for tvvelve yeares.

Printed at Amſterdam,

By Iacob Columne, on the Water, in the Fierie Columne, Anno M. DC. XL.

ENGELANDT.

NEDERLANT.

MEKLENBORGH.

Met Privilegie der Ed. H. M. Heeren Staten Generaal voor twaelf jaren.

51 52 53 54 55

London
Yarmouth
Lowestoft
Harwich
Colchester
Maldon
Ipswich
Orfordness
Aldborough
Dunwich
Southwold
Lowestoft
Barnard
Winterton
Caistor
Yarmouth
Lynn
Boston
Spurn hd
Hull
Flamburgerhooft
Scharenburg
Romerhooft
Texel
Vlieter
Schaffen
Nieuport
Dunkerk
Calais
Boulogne
Sandwich
Dover
Rye
Beveziers
Grevesend
Blackwall
Tilbury
Sheerness
Queenborough
Harwich
Yarmouth
Lowestoft
Sunderland
Newcastle
Tynemouth
Blyth
Scarborough
Whitby
Redcar
Hartlepool
Dagsborough
Bamborough
Farn-I.
Holy-I.
Berwick
Schaffen
Ostende
Nieuport
Dunkerk
Calais
Boulogne
Dover
Rye
Hastings
Beachy hd
Dungeness
Rumney
Winchelsea
Pevensey
Eastbourne
Seaford
Newhaven
Brighthelmstone
Shoreham
Littlehampton
Bognor
Chichester
Selsey
Portsmouth
Gosport
Southampton
Lymington
Poole
Weymouth
Portland
Lyme
Exmouth
Dartmouth
Plymouth
Falmouth
Scilly
Lands End
Cape Clear
Kinsale
Waterford
Dublin
Carlingford
Strangford
Belfast
Carrickfergus
Donaghadee
Portpatrick
Whithorn
Kirkcudbright
Wigtown
Ayr
Irvine
Greenock
Dumbarton
Glasgow
Port Glasgow
Ailsa
Arran
Campbeltown
Mull
Islay
Jura
Colonsay
Tiree
Coll
Barra
Lewis
Harris
Skye
Rum
Canna
Eigg
Muck
Ardnamurchan
Mingary
Tobermory
Oban
Lismore
Kerrera
Scarba
Jura
Islay
Gigha
Sanda
Ailsa
Arran
Ireland
Scotland
Wales
Holland
Zeeland
Flanders
Brabant
Artois
Picardy
Normandy
Britaine
Cornwall
Devonshire
Somersetshire
Dorsetshire
Hampshire
Sussex
Kent
Essex
Suffolk
Norfolk
Lincolnshire
Yorkshire
Northumberland
Durham
Cumberland
Westmorland
Lancashire
Cheshire
Shropshire
Staffordshire
Derbyshire
Nottinghamshire
Leicestershire
Rutlandshire
Northamptonshire
Huntingtonshire
Cambridgeshire
Bedfordshire
Buckinghamshire
Oxfordshire
Berkshire
Wiltshire
Gloucestershire
Herefordshire
Worcestershire
Warwickshire
Monmouthshire
Glamorganshire
Carmarthenshire
Pembrokeshire
Cardiganshire
Merionethshire
Carnarvonshire
Anglesey
Denbighshire
Flintshire
Montgomeryshire
Radnorshire
Brecknockshire
Monmouthshire
Herefordshire
Gloucestershire
Somersetshire
Devonshire
Cornwall
Dorsetshire
Hampshire
Isle of Wight
Sussex
Kent
Surrey
Middlesex
Essex
Suffolk
Norfolk
Cambridgeshire
Huntingtonshire
Bedfordshire
Buckinghamshire
Oxfordshire
Berkshire
Wiltshire
Northamptonshire
Leicestershire
Rutlandshire
Lincolnshire
Nottinghamshire
Derbyshire
Staffordshire
Shropshire
Cheshire
Lancashire
Yorkshire
Durham
Northumberland
Cumberland
Westmorland
Isle of Man
Ireland
Scotland
Wales
Holland
Zeeland
Flanders
Brabant
Artois
Picardy
Normandy
Britaine
Dogger
Welle
Wit water
Smit
Brec Veerhen
Eems
Texel
Vlie
Terschelling
Ameland
Schiermonnikoog
Rottumer
Borkum
Helgoland
Westerrusen
Lubeck
Flein Cruysoort
Groot Cruysoort
Wismer
Terminde
Rostock
Robbenes
Barts
De Telle
Menfonde
Gryphswald
Stralsund
Greifswald
Usedom
Wollin
Stettin
Pomerania
Rugen
Hiddensoe
Bornholm
Gotland
Oland
Carlscrona
Calmar
Stockholm
Upsal
Gefle
Hernosand
Umea
Pitea
Lulea
Torneo
Tornea
Gulf of Bothnia
Aland
Abo
Helsingfors
Revel
Narva
Dantzick
Elbing
Pillau
Memel
Courland
Livonia
Esthonia
Ingria
Finland
Lapland
Sweden
Norway
Denmark
Jutland
Funen
Zealand
Sleswick
Holstein
Lubeck
Hamburg
Bremen
Verden
Lunenburg
Brunswick
Hanover
Saxony
Anhalt
Magdeburg
Halberstadt
Mansfeld
Thuringia
Hesse
Westphalia
Cleves
Gelderland
Overyssel
Friesland
Groningen
Drenthe
Utrecht
Amsterdam
Rotterdam
Delft
Leyden
Haerlem
Gouda
Dort
Schiedam
Vlaerdingen
Helvoet sluys
Goree
Briel
Maes
Scheld
Rhine
Yssel
Vecht
Ems
Weser
Elbe
Oder
Vistula
Danube
Rhine
Meuse
Scheld
Somme
Seine
Loire
Garonne
Rhone
Po
Tiber
Arno
Tagus
Douro
Guadiana
Guadalquivir
Ebro
Minho
Lisbon
Cape St Vincent
Gibraltar
Malaga
Carthagena
Alicant
Valentia
Barcelona
Majorca
Minorca
Ivica
Sardinia
Corsica
Sicily
Malta
Naples
Rome
Genoa
Venice
Trieste
Ancona
Leghorn
Civita Vecchia
Messina
Palermo
Syracuse
Candia
Cyprus
Rhodes
Scio
Negropont
Constantinople
Gallipoli
Dardanelles
Smyrna
Alexandria
Grand Cairo
Suez
Red Sea
Mecca
Jidda
Aden
Babelmandel
Ormus
Persian Gulf
Bassora
Bagdat
Euphrates
Tigris
Caspian Sea
Astrakan
Volga
Don
Azoff
Crimea
Caffa
Precop
Nieper
Kiow
Smolensko
Moscow
Novogrod
Ladoga
Onega
Archangel
Dwina
Wardhuys
Kola
Lapland
Fin

57 58 59 60 61 62

Orcades

Fulo

Feröl

S. Magni soort

Hitland

Hamburger haven

Hanglip

Iello

Oleto

Kimmen

Solmerssoort

Oldesom

Ornaell

Swinoe

Stadtlandt

Lange

Anstoo

Drontem

63 64

NOORWEGEN.

Duytsche mijlen 15 voor een graedt

Spaensche mijlen 17 ½ voor een graedt

Engelse en fran. mijlen 20 voor een graedt

Pascaerte vande NOORD-ZEE,

Beschreven door Iacob Aertsz. Colom.

Le Flemme de Texel les Trous de Marsdiep et Goeree et aussi la Meuse.

De Teßelstroom met de Gaten van Marsdiep.

Twisck
Medenblick
Operdoes
Hem een hooge Spitse toren
Enchuysen
Groote Broeck een hooge Spitse toorens
Lutke Broeck een klein Spits toorentken
De uterste ton vant Noordergat
Geldersche hoeck
Broecker oirt
Buert huysen beoosten Werverts hoof
Werverts hoof
Drysdal
Munnicke sandt
Breesandt
Zuyderton
Middelton
Noorderton
Breesandt
Baken op de Kreupel
Kreupelsandt
De Kille
De 8 Watermeulens beoosten Medenblick
Medenblick
De 7 Watermeulens beoosten Medenblick
Almer dorp Sonder toorn
Seughoort
Caep
Cleverseez
Den Oever
Wieringen
Westlander kerck
Oostlander kerck
Strv
Ypels Hoof
De Drysdal
Repel
Baken op Vogelsandt
Burghsandt
Diepe hoeck
Vlieter Diep
Dirx Boe
Wieringen
Westerlant
Mr Aplitus hoef
Den Oever
Oosterlandt
Hoogh
Grootz kaap
Huys Aurnen
Eijckduyn
Dircxoms duyn
Drooge bergers hille
De Helder
Kaap Oostereind
Zuydhaffel
TEXEL
De Pan
Hoorn
De Burgh
De Westen
Westeind t'Wambus
Eyerlandt
Koogh
Landdiep
De Slenck
Kijckduyn
Vogelsandt
Schulpen gat
Kijckduyn gat
Duytsche mylen is in een graedt
Eng. en Fr. mylen 20 in een graedt

Caarte vande Reede end Haven van Medenblick hoemen die Coomende soude t'Wieringer als vriesch vlack bezeylt mogen tot dienst ende nut voor alle zee varende luyden perfectelyc gemeten ende beschreven Anno 1632 uyt speciale last vande E. H. Burgemeesteren ende Regeerders der voorst Stadt Medenblick

Twee Duytsche mylen
1 2
2. Lieues d'Allemaigne

De Maſe
met het
Goereesche
gat.

Rotterdam
Delfshaven
Carolus
De Hy
Overſchie
Schiedam
Oude Maas
De Ketel
S. Sluyſen
Vlaerdingen
Pos
Spickemße
tLandt van
Putten
Bizert
Sudlandt
Geervliet
Ambroeck al:
Abbenbroeck
Middelharnis
Sommerdyck
Diefslandt
Hellevoet
Sluys
Hellevoet
Quack
Den Hals
De Stelle
Goeree
West vooren
Outdorp
oste tLandt van
Goeree . .
Den Hinder
Maeslandt
Boone Sluys
Maeslandt Sluys
Rosenburgh
Nieuwe Sluys
tLandt
van
Voorens
thuys ter lucht
Lier
Naeldwyck
Den Briel
Nieuwen hoorn
Kary op den
heindyck
Monster
S. Graevesandt
Oostvoorn
Retange
Wint gat
Westplaet
Rockeplaet
25

Markes of the beakon upon Cripplefand.

Markes of the foulther buy upon the Flat.

For to say over the Gammels to Medenbli.k.

The ſecond part of the Fierie Columne.

THE FIRST BOOKE.

Of the

WESTERN NAVIGATION.

Containing

The deſcription of the Sea-Coaſts of Holland, Zealand, and Flanders, from Teſſell to the Heads of Dover of Calice.

The firſt demonſtration.

Wherein

Are deliniated the Theſſel-ſtreame, and the Channell of the ſame, as alſo the Maſe, and the Channell of Goeree.

HOw men ſhall ſayle from Amſterdam to Urck (about Enchuyſer ſand) and from Enchuſen to the Crippell and Creyl, is deſcribed in the firſt demonſtration of the firſt booke concerning the Eaſtern navigation.

From the Buye upon the Crippell, which lyeth upon the eaſt end of the Cripple-ſand three fathom) unto the Beakon upon Cripple-ſand, the courſe is northweſt and by weſt, and northweſt. When Lutkebrooke, a ſmall ſpire ſteeple commeth to Hem (which is alſo a ſpire ſteeple) then are you thwart of that beakon. From the Beakon upon the Crippele, unto the ſouther buye upon Wieringher flat, the courſe is northweſt and by weſt, or weſtnorthweſt, according as the wind and tyde ſhall bee, it lyeth at high water with an ordinary tyde, in thirteene foot and a halfe, the markes thereof are theſe: Grootebrooke commeth betwixt two Hay-ſtacks to the eaſtwards of the five water-mils which ſtand to the eaſtwards of Warvers hoof, that is a long marke in the ſ. Twiſch a ſharpe ſteeple to the weſtward of Medenblick, commeth ouer Almerdorp, there was wont to bee a little flat ſteeple, but it is fallen downe, and therefore now not ſo good to bee knowne, that was a right thwart marke. Upon Wieringen ſtandeth a cape, bring Eaſtlander ſteeple, which is a flat ſteeple upon Wieringen, right over the cape, and ſayle ſo right with it, and you ſhal come right with the buy. When you are at the buy, Weſtlander Church commeth then over Cleverſtee, and the eight mils to the eaſtwards of Medenblick, a little without the towne. For to finde the deepeſt of the flat comming from the Cripple, you muſt bee carefull to looke out for the foreſayd markes. If that Twiſch come firſt to Almerdorp, before Cleverſtee come to weſtlander Ghurch, then you are too neare to Breeſand, or the grounds on the ſtarboard ſide, theſe are ſure markes for to ſayle over the flats, when there lye no buyes. Alongſt to the eaſtwards of the buye is the deepeſt water. If you will anckor before the Wieringer flat, then come no nearer the Flat then when Twiſch commeth a little to the Northwards of Opperdoes, or halfe wayes betwixt Opperdoes and Almerdorp.

Markes of the beakon upon Cripple-ſand.

Markes of the ſouther buy upon the Flat.

For to ſayl over the Gammels to Medenbli.k.

For to ſayle from the foreſayd ſouther buy over the Cammels to Medenblick, you muſt bring the weſtermoſt water-mill of the eight (which ſtand to the eaſtwards of Medenblick) a capſtone barres length without or to the eaſtwards of the Bulwarke of the towne, and ſayle then boldly without feare right in with them, untill that you come into the road where the ſhips commonly lye, or elſe, if you deſire to goe into the Haven, then ſayle in right to the norther-head, there is nothing that can hurt you. But if you muſt turne to windwards over the Gammels, and that your ſhip draweth more then eleven foot water, then runne not further over to the weſtwards, then that the foreſayd Water-mill commeth almoſt within, or a handſpikes length to the foreſayd Bulwark, ſo that yet you may well ſee through betwixt them, then ſet about, and run over to the eaſtwards, ſo long untill Grootebrooke come in the five water-milles, which ſtand to the eaſtwards of Warmerſhoof, or on to the eaſtwards of them, ſo you ſhall not doe amiſſe, for it is there broad and wide.

If you deſire to ſayle over the Gammels to Medenblick, when you come from the Flye, then bring the ſteeple of Opperdoes over the weſtermoſt Water-mill of five, which ſtand to the weſtwards of Medenblick, and runne in ſo right with them, untill that the weſtermoſt water-mill of eight (to the eaſtwards of Medenblick) come to ſtand a capſtone barres length without the Bulwark, as here before once already hath been ſayd. Having theſe marks thus, and that it doe become darke, then goe on ſouth & ſouth and by eaſt, according as the wind and tyde ſhalbe, and you ſhall not doe amiſſe, neither ſhall you miſſe the Town. In this foreſaid faire way, there is no leſſe depth then upon the wieringher flat, and all ſoft ground.

when the ſteeple of Twiſch is over the weſtermoſt water-mill except one of the five which ſtand to the weſtwards of Medenblick, and Grootebroeck, in the little village, to the eaſtwards of the five water-mills on the Eaſterdyke; thẽ are you in thirteen foot from the northweſt poynt of the Cripple, and paſt the taile of the Cripple. Vpon theſe foreſayd markes, and thirteen foot, lyeth a buye with three leggs, and on the foreſayd weſt ſhoare lye three drift-beakons in twelve foot, and then commeth the weſtermoſt water-mill (of the eight which ſtand to the eaſtwards of Medenblick) and ſo you ſhall not have leſſe water then upon the Wieringher flat.

For to ſayl over the wieringen flat.

From the Souther buye to the ſecond or middle buye, the courſe is northweſt and northweſt and by north: but for to find the deepeſt water, goe firſt northweſt ſo long untill that Ypelshoofs Church come over the water-mill, which is called the Bolmill, and then forth n. w. and by n. When the Cornmill upon Wieringen commeth in the ſwamp of the Oever, then you have the length of the ſecond Buye, which lyeth upon the weſt, or the ſouth end of a little plate called the Repell, the faire way is alongſt to the weſtwards of it, there being at low water two fathom large, and at high water ſcarce three fathom deep. On the weſt ſide of the fayre way, betwixt the ſouther buye, and the middle buye, neareſt the middle buy, lyeth a hard ſand called the Sow, or the old Sow, which on the eaſt ſide is very ſteepe and needle to which (in ſayling up) men might ſayle within a poynt or tayle of it: to the weſtwards of it ſhooteth off another tayle to the northwards, a great wayes towards the Northeaſt buye. Upon the outermoſt, or northermoſt poynt, called Seughoort, ſtandeth alwayes a beakon. Upon Wieringer upon the Oever ſtand two little capes with barrels on them, the one upon the North end of the Oever, and the other upon the head, they are ſo little, that you can hardly ſee them: when you come off from the ſouther buye towards the middle buye, then keepe them not one in the other, for if you keepe them one in the other, then you will bee very

cloſe by the ſouth ſhoare, and ſhall but even run cleare of the old Sow, but keep the ſouthermoſt a little to the weſtwards of the northermoſt, and then you ſhall run alongſt the right fareway, and ſhall not take any hurt of the old Sow. When you come neare the middle buy, you muſt leave theſe marks and uſe them then no longer.

From the middle buye unto the Norther buye, the courſe is northnorthweſt; when you come thwart of the norther buye, then commeth Ooſtlander Church and the Cornmill, both over a little Chappell covered with red tiles, that ſtand upon the Oever, thwart of it alſo ſtandeth the foreſayd beakon upon Seughoort. By the Norther buye it is ſcarce three fathom deepe at high water, the fareway is alongſt to the weſtwards of it. When you come by the norther buye, keepe ſtill the foreſayd North-Northweſt courſe, untill that Ooſtlander Church come to the northwards of the Sedge-dyke of the Oever, and then you are paſt the little plate which lyeth by the Norther buye.

When as that Ooſtlander Church commeth from the Sedge-dyke, goe then north, and north and by eaſt on, to the Neſſe. In that fareway it is broad and wide, the weſt ſhoare all alongſt unto the Neſſe, is very flat, there you cannot take any hurt, but may boldly runne alongſt by it, although it were a lee ſhoare, but the eaſt ſhoare is ſteepe, eſpecially ſomewhat further out towards Jaepvaer. When the great Cape from Wieringhen ſtandeth a great ſhippes length to the eaſtwards of the houſes upon the Oever, then you are well to waye, and right in the fare-waye betwixt the norther buye and the Neſſe. When Ypelshoof and Stru are one in the other, there is the roade, where men doe lade and unlade, you may anckor thereabouts in the middeſt of the fareway in foure fathom, the nearer the eaſt ſhoare the deeper. Jaepvaer is a tayle of ſand or plate faſt to the eaſt ſhoare, which you might ſayle within when you ſayle off, but ſpecially in ſayling upwards in ſix or ſeven fathom, upon it lyeth a blacke buye. Upon the poynt of the Neſſe over againſt Jaepvaer lyes a white buye, theſe lye both in three fathom, or three fathom and a halfe. In the winter, when the buyes are taken away, then in place of the white buye there is ſet a beakon upon the Neſſe. From the Neſſe to Voghelſand, the courſe is moſt northweſt, therefore when you have gotten the length of the buye or the beakon upon the Neſſe, goe then more weſterly, Northnorthweſt, and Northweſt and by North and Northweſt, unto the Beakon upon Voghelſand; the weſt ſhoare you may ſound in ſix and ſeven fathom. The markes of this reach are theſe, the Mill of Ooſterend (which is a little Village upon the eaſt end of Teſſell) and the Cape which ſtandeth upon the dyke, one in the other, then are you amiddeſt the Channell in the deepe, that is, tenne, eleven, and twelve fathom: when the mill ſtandeth ſomewhat to the ſouthwards, or to the weſtwards of the Cape, then are you by the ſouth ſhoare, which is very ſteep, which (in turning to windwards) you may not come nearer then in eight or nine fathom, but being paſt Voghel-ſand, it groweth ſhowlder, and the eaſt ſhore very ſteepe. As ſoone as you finde that it beginneth to ſhowld, you muſt caſt about, elſe you ſhould preſently be on againſt the eaſt ſhoare.

From the beakon upon Voghell-ſand, the courſe is weſt Northweſt unto the buye upon Burg-ſand, which lyeth upon the tayle of the Share, the markes of it are: the Eyerland even unto the eaſt poynt of the Iland Teſſell, and the Church of the Horne upon Teſſell to Zuyd-haffell, which is a few houſes to the northwards of the Schonce. Or elſe when you come about Voghel-ſand, then keep the foreſaid cape and mill one in the other, untill that the foreſaid Horn come to, or through Zuyd-haffell, and then run on, keeping them ſo: when that Eyerland commeth even to the eaſt poynt of Teſſell, then you have the length of the buye upon the Burg-ſand, you may bring the Horne well ſomewhat to the northwards of Zuyd-haffell, but in no wiſe to the ſouthwards of it, for elſe you ſhould ſaile on againſt the ſouth ſhoare. For to ſaile from thence to Copevaerders roade, you muſt keepe the Horne to Zuyd-haffell, and ſayle forth keeping them ſo, untill you come againſt Teſſell in the roade, and anckor there where you thinke good. Before Ooſterend it is beſt for ſmall ſhips, there it is ſhowld water, and there goeth little tide, but moſt ſhips doe anckor before the Geeſt.

Upon the poynt of the Boſſe lyeth a white buy in three fathom on the weſt poynt of the Balgh, which you muſt leave on the ſtarboard ſide, and run about to the eaſtwards of it into the Balgh, & then forth alongſt by the beakons to Wieringhen, you muſt leave all the beakons alſo on the ſtarboard ſide. The Bos.

For to ſayle from the Copevaerders road out at the Teſſel you muſt goe firſt ſouthweſt or ſomewhat weſterly to the Helder, or run alongſt by the Teſſell ſide in 9 or 10 fathom, untill you come neare the Helder, and then goe out weſt cloſe alongſt by the ſhore of the Helder, and by little and litle ſomewhat more northerly, untill that the capes upon Huyſdown be one in the other, or that the greateſt come through the ſmalleſt, to wit, to the weſtwards of it, and then goe out n.n.w. or more northerly or weſterly, according as the wind or tyde ſhall be, untill you come againſt the north ſhoare, in 5 or 6 fathom, and run boldly out alongſt by it, untill you be cleare out at ſea. For to ſayl out at Teſſell

When the tower of Weſterend (which men do name the Weſten, or the Wambus) commeth to be e.n.e. from you, or a little more eaſterly, then you have the length of Cape & ſteeples buy, that is, the innermoſt buy of the Spaniards channell, which you ſhall eſpie on the larboard ſide. To the northward of it lye three other buyes, all along the eaſt ſide of the Keyſers-plate, neare upon one courſe, (to wit, n.n.w. or a little more northerly) which you muſt leave (in ſayling out) all on the larboard ſide. The outermoſt buye lieth from the fourth, north ſomewhat eaſterly upon the poynt of the Keyſers plate, in 22. foot at low water, you may run alongſt to the weſtwards of it, but not far, for the Keyſers plate is on the eaſt ſide unto the outermoſt end very ſteep, but the eaſt ſhoare of the deepe it is flat. When you come thwart of the foreſaid outermoſt buye, then lyeth the Kooger Church right e.n.e. from you, and the capes upon Huyſdown are one in the other.

For to finde the Spanniards Channell comming from the northwards, you muſt bring the Capes upon Huyſdowne one in the other, or a little through one another, to wit, the Runner that is the ſouthermoſt and greateſt, a little to the eaſtwards of the other, then they ſhall ſtand ſouthſouth-eaſt from you, ſayle then right in with them, keeping them ſo, and you ſhall ſayle right upon the outermoſt buye, or in ſight of it, which lyeth (as is ſayd) upon the poynt of the Keyſars plate in 22. foot at low water: when you come to the buye, the Koger Church ſhall lye due eaſt n. eaſt from you. For to ſayl in at the Spaniards channell.

Therefore if you come from the weſtwards or the ſouthwards, then bring that Church not more northerly then eaſt-northeaſt but rather a little more eaſterly from you, and ſayle then right in with it, untill that the Capes come one right againſt another, or elſe you ſhould lightly ſayle upon the Keyſers plate, which is without upon the North ſide very ſteepe.

Men may runne along to the weſtwards of the outermoſt buy, but not far: alongſt to the eaſtwards of it, it is broader and wider.

From the firſt or the outermoſt buye, to the ſecond, the courſe is ſouth ſomewhat weſterly, and from thence to the third, fourth, and fifth, which is the buye of the Cape and ſteeple, it is almoſt one courſe, Southſoutheaſt, or ſomewhat ſoutherly, the buyes lye all on the weſt ſhoare, men may for need ſayle alongſt to the weſtwards of them, but not farre, for the weſt ſhoare is ſo ſteepe, that if a great ſhippe ſhould lye with the ſtemme againſt it, there ſhould be a head no more then 3 foot, and by the main maſt at leaſt three fathom deepe, but the eaſt ſhoare is flat, men may runne alongſt by it upon you lead, untill they come within the buyes. The buye upon the tayle, that is, the innermoſt buye of the Slenck, lyeth from the buye upon Cape and ſteeple, ſouth and by weſt, and ſouthſouthweſt, but the Helder Southeaſt. Men may ſayle from the buye upon Cape and ſteeple, right with the Helder, without danger, or to the buye upon the tayle, and from thence alongſt

by

by the ſouth ſhore, which is alſo very ſteepe, or eight to the Helder, according as ſhall be beſt convenient for the wind and tide. The foreflood falleth very ſtrong over the ſouth ground northnortheaſt to the Spaniards channell, untill halfe flood, and the fore-ebbe to contrary ſouthſoutheaſt, untill halfe ebbe. The Helder lyeth from the buye upon the taile, eaſtſoutheaſt, and ſoutheaſt and by eaſt. When you are come neere the Helder, runne cloſe alongſt by it, for to avoyd a taile which ſhooteth of from Geeſt ſand, which you might ſail within when you come in out of the ſea, there lyeth a buye upon it, which you muſt leave on the Larboard ſide. Being paſt the Helder, goe northeaſt, or ſomewhat more eaſterly, or alongſt by the Teſſels ſide in eight or nine fathom, unto the Copevaerders roade the Wieringhen ſide is ſteepe.

The falling of the ride.

In the Slenk lye ſixe buyes, the innermoſt lyeth upon the taile of the Keyſers plate, weſtnorthweſt from the Helder For to ſaile out at the Slenk, you muſt runne alongſt to the ſouthwards of it, and leave it on the ſtarboard ſide, and goe out weſt, and weſt and by ſouth, to the ſecond and third buye, from the third to the fourth and fifth weſtſouthweſt, the ſixth or outermoſt lyeth a little more ſoutherly.

The Slenck.

For to finde the Slenk comming in out of the ſea, then bring the Cape upon the Iland Teſſel, and the Weſten, (that is the ſteeple of Weſteynder Church, which men doe alſo name the Wambus) one in the other, then they ſhall ſtand a little more northerly then eaſtnortheaſt from you, ſaile in ſo right with them, and you ſhall runne in ſight of the outermoſt buye, which lieth from the Kyckdowne weſtnorthweſt, and weſt from the Helder. If you come from the Northwards or the weſtwards and will go in at the Slenk, then bring the Kyckdowne eaſtſoutheaſt from you, or the great Cape upon Huyſdown in a little valley a little to the northwards of the Kyckdowne, to wit, betwixt the Kyckdowne and Cane Neles houſe, ſaile then ſo right in with them, untill that the Cape upon Teſſell and the Weſten are one in the other, then you have the length of the outermoſt buye, and ſhall not miſſe to meet with it, which lyeth in foure fathom and a halfe at high water, and in a quarter leſſe then four fathom at a low water. Keepe that Cape and ſteeple one in the other, and ſayle in ſo right with them all alongſt untill paſt the third buye, which lye all, (like as alſo the fourth and fifth) in the middeſt of the fareway, but alongſt to the ſouthwards of it is deepeſt, the ſouth ſhore is very ſteepe, ſo that having one caſt foure fathome and a halfe, the next caſt you ſhal have buth three fathome, but the weſt ſhore is flat going up, The fourth buye lyeth from the third eaſtnortheaſt, or ſomewhat more eaſterly: the fourth and fifth eaſt and by north. The fifth and ſixth eaſt and by north, and eaſt northeaſt. The ſecond buye lyeth at low water in twenty or one and twenti foot, upon the ſhouldeſt of the ſlenck: the other buyes lye in foure fathom at low water, but the ſixth, or innermoſt, in 3 fathom upon the poynt of the tail, which you may not ſail about to the northwards of it: but muſt leave it on the Larboard ſide, in ſaylin in. But you muſt reckon your tydes well. The fore-flood falleth north northeaſt, thwart over this channell, and the ſouth grounds, untill halfe flood, and to the contrary the fore-ebbe ſouthſoutheaſt untill half-ebbe.

Within the ſixth buye it is broad and wide, and men ſaile in from thence right to the Helder eaſtſoutheaſt.

The Land deepe.

For to ſayle out at the Land-deepe, then run alongſt within a bow ſhot of the foot ſtrand of Huyſdown, and about by the heads, and you ſhall not miſſe the innermoſt buye, which lyeth upon the ſhouldeſt, neereſt the weſt ſhore in ſeventeen foot at high water, and thirteen foot at low water, that ſhouldeſt place is not above 2 ſhippes lengths broad, over it, and alſo within it, it is deep enough. Thwart of that buye, ſhooteth of a litle taile from the ſhore towards the buye, therefore runne cloſe alongſt by the buye, and leave it on the ſtarboard ſide of you in ſailing out. Beſides that buye, there lye 3 other buyes in the Land-deep, which you muſt leave all lying to ſeawards of you, and run through betwixt them & the ſhore, when you are come paſt the 4 buye, you ſhal be paſt all the ſhoulds, and you may ſet your courſe that way that you deſire to be.

For to find the Land-deepe comming out of the ſea from the ſouthwards, you muſt take the ſounding of the ſhore in foure fathom and a halfe, and runne ſo along by the ſhore, and you ſhal ſaile right wit the outermoſt buye; and doing ſo, come no nearer the ſhore, or els you ſhould ſaile within the taile of Arrian Bergers Creek, which ſhooteth off to ſeawards from the ſhore, to the ſouthwards of the ſouth ſandhill. Or els if you come out of the ſea with an open winde, then ſed and keepe the great Cape upon Huyſdowne, over Dirckooms ſand-hill, (that is, a round ſand-hill a little to the ſouthwards of the Kyckdowne, but not ſo high) and ſaile ſo in right with it, you ſhall not miſſe to meet with the outermoſt buye, which lyeth at low Water in foure Fathom and a halfe neareſt to the Weſter grounds, or to the hakes, leave it on the larboard ſide, and runne in alongſt to the eaſtwards of it, through betwixt it & the ſhore, it lyeth moſt northeaſt, and northeaſt and by north in, you cannot lightly take hurt on neither of bot ſides, if you doe but take heed to keep you from the ſhore. Thwart of the Kyckdowne, or comming to the ſouthwards of it, you muſt edge a little off from the ſhore, for to avoyd a ſhowld which lyeth thereabouts, ſomewhat off from the ſhore. When you come to the ſecond buye, then commeth the mill to the Northwards of the Kyckdowne, and at the third, the mill and Cane Neles howſe come one in the other; which two buyes lye both in five Fathom at low water. From the third to the innermoſt buye, it is northeaſt & by eaſt, run cloſe along to the Eaſtward of it, for to avoyd the foreſayd litle tayle of ſand, which (thwart of it) lyeth off from the ſhore, and then forth within a bow ſhot about by the heads; and ſo along by the ſtrand of the Helder: For to ſail up from the Helder towards the Wieringe flat, you muſt goe northeaſt, or ſomewhat more eaſterly, according as the wind and tide ſhall be, or elſe in eight or nine fathom alongſt by the Teſſel, untill that the Hoorn come to the northward of Zuydhaffell, but take heed of the Wieringhen ſide, which is ſo ſteepe there, that you may have twelve or thirteene Fathom at one eaſt, and ſhould be a ground before you ſhould be able to heave the lead againe.

Arrian Bergers Creek.

When that the Hoorne commeth then to Northwards of Zuydhaffell, then keep them ſo ſtanding, and ſaile up ſo to the Voghel ſand, when that the Eyrland commeth even without the eaſt poynt of Teſſell, then you have the length of the buye upon Burghſand, which lyeth on the ſouth ſhore, upon a taile of ſand, which men may ſayle within a five or ſixe Fathom. From that Buye upon Burghſand, it is e. ſ. e. to the Beacon upon Vogelſand, but ſaile upon the foreſaid markes of the Hoorn and Zuydhaffell, ſo long untill that you have the Cape upon Teſſell, and the mill of Ooſterend one in the other, the keep men one in the other leaving the firſt markes, & ſail up ſo unto the buye or Beakon upon the Neſſe, & ſo you ſhall run amidſt the channel in the fareway which is 10, 11 & 12 fathom deep. If you bring the mill a a little to the Weſtwards of the Cape then you ſhall be cloſe by the ſouth ſhore, which is ſo ſteepe, that you may not come neare it, in turning to windwards, then in eight or nine Fathom. Being come about the neſſe, then goe on ſouth and ſouth and by weſt, towards the buy upon flat.

Burghſand.

The Neſſe.

Teſſel is a long plaine Iland, whereupon ſtand 4 Churches, the weſtermoſt hath a high ſharpe ſteeple, & is called Weſteynd, or S. Iohns, but by the Pilots it is called the Weſten, or the Wambus. To the ſouthwards of that ſtand an other ſharp ſteeple called the Hoorn. The 3 is called the Burgh, which ſtandeth ſomewhat more to the northwards then the other two beforeſayd. The fourth is called the Oogh, or the Koogh, which is the northermoſt of them all, without ſteeple, and is covered with blew ſlates.

The Eyerland lyeth cloſe to the eaſtwards, or to the northwards of the Teſſell, and faſt to it, when it floweth ſomewhat high, it is divided off from the Teſſel by the ſea, and made to an Iland: it ſheweth it ſelfe off at ſea like a low plaine little Iland with little hommocks, there ſtandeth upon it no more then two little houſes.

Eyerland.

Huyſdown is a ſhort poynt of land with ſome white ſand-

Huyſ-down.

hills, where of the greateſt and higheſt is called the Kyckdowne, or Kykers-downe, the next to the ſouthwards of it, is called Dirckooms-ſandhil, further to the ſouthwards they run flat off by little and little; and at length to nothing in a flat plaine ſtrand. Upon the eaſt end, called the Helder, lye alſo ſome ſandy hils, betwixt the Helder and the Kyckdowne it is moſt flat ſtrand, with ſome ſandy hils like a dyke, upon which (about halfe way betwixt both) ſtandeth the little or the outermoſt cape, the great cape ſtandeth ſomewhat within the land, about eaſt from the Kyckdowne.

Huysdowne, or the Marſ deep and the Maes lye ſouthſouthweſt ſomewhat ſoutherly, and northnortheaſt ſomewhat northerly about foure and twenty leagues aſunder. Petten. From Huysdowne to Petten the coaſt lyeth ſouth and by weſt foure leagues. Petten hath a little Church with a little ſteeple, and there abouts you ſhall ſee two other little ſharpe ſteeples in the Northland. A little to the ſouthwards of Petten lyeth the Hondboſch, a league to the ſouthwards of Petten lyeth Camperdowne, the beſt land to be knowne thereabouts, the north end is a high ſteepe white ſand-hill. which goeth ſloping down: the ſouthermoſt part is gray & rough, being grown over with head, or ſpyrie graſſe, to the ſouthwards of it lye many rough hommockes or ſand-hilles where ſometimes you ſhall ſee amongſt them a white ſpot, ſo that it is very good to be known. From Petten to Egmont upon the ſea, it is three leagues. Egmondt upon the Sea. Egmondt upon the ſea is alſo very good to beknowne, for it hath a thick flat ſteeple, which ſtandeth like a ſaile in the ſand-hill, and a little to the ſouthwards of it you may ſee Egmont-within, which hath two high ſteeples upon the Abbey cloſe one to the other, where of the one is ſharpe, and the other (to wit, the northermoſt) is flat, becauſe the ſpyre is lately fallen down. A little to the northwards of the Abbey ſtandeth another ſteeple of the church upon the ould walles, but it is not ſo high as that upon the Abbey: ſo that upon all the coaſt of Holland, there is no place ſo good to be knowne as this. VVyck upon the Sea. From Egmont upon the ſea to Wyck upon the ſea, are three leagues, that is alſo a flat ſteeple: when you are thwart of Wyck upon the ſea, you may ſee Beverwijck a little to the northwards of it; which is a high thick, and ſharpe ſteeple; beſides that, you may ſee alſo betwixt Egmont and wyck upon the ſea Caſtricom, and more other ſharp ſteeples. Santfoort. From wyck upon the ſea to Santfort, it is three leagues. Sandford hath a ſharp ſteeple, with a high fire-beakon, a little to the ſouthwards of it, in the black ſand-hill which ſheweth it ſelfe alſo like a ſteeple.

To the northwards of Sandfort lyeth a high white ſand-hill, alongſt over which you may ſee Harlem, high ſquare croſſe Church, which hath a high ſharp ſteeple upon the midſt of the church, and alſo to the northwards of it, a high ſmall ſteeple, called Baeckneſſer ſteeple) thwart of it Nortwyck. hath the coaſt of Holland a great baye. From Santfort to Northwyck upon the ſea, are three leagues, that is a flat ſteeple, whereby ſtandeth a fire-beakon. To the northwards of Nortwyck upon the ſea, you may ſee Nortwyck within, Catwyck. a flat ſteeple whereupon ſtandeth a little cap not very high, and upon the middeſt of the church ſtandeth a little ſmall tower. From Northwyck to Catwyck upon the ſea; it is a great league, being alſo a flat ſteeple, which in times paſt hath had a ſpyre: to the ſouthwards of it ſtandeth a high fire-beacon, to ſee to like a ſteeple: you may alſo ſee thereabouts within the land (when you are not very farre from the ſhore) Catwyck upon the Rhyne, and Rynsburgh, and Valckenburgh, all ſharpe ſteeples. Scheveling. From Catwyck to Schevelinghen are three leagues, the Quire of Scheveling church is ſomewhat higher then the church it ſelfe: in manner as the Haghers church: a little to the ſouthwards of that church ſtandeth alſo a fire-beakon. About halfe a league within the land, The Hage. you may ſee the Church of the Hage, which is very good to be known, the Quire is higher then the body of the Church. The Haghes ſteeple you may ſee farre above any other part The Heyde. of the land. From Scheveling to the Heyde it is two leagues and from thence forth to Graveſand, or to the North ſide of the Maſe, one league. The Heyde is a village without a ſteeple: but a little within the ſand-hill, ſtandeth a flat ſteeple called Monſter. Graveſand is a high ſharp ſteeple, very good to be knowne, which ſtandeth on the north ſide of the Maſe. The Brill is a great flat ſteeple on the ſouth ſide of the Maes. Monſter. Graveſand. The Brill. Al this coaſt of Holland, from Huysdowne to the Maes, is altogether a clean ſtrand, which men may come ſo neare to as they will, into foure and five fathom.

Of the Maes, and Goerees gat or channell.

The Maes hath two channels, or deeps, the norther channell goeth in by the north ſhoare, and the ſouther by the ſouth ſhore, or by the land of the Brill. Betwixt theſe two deeps lieth a great plate of ſand, called the Honde-plate, there remaineth at low water upon it ſixe and ſeven foot, and at ſome places eight foot water.

Upon the north ſhore of the Maes about ſouthweſt from Graveſand, ſtand two capes. For to ſaile in at the norther channell, bring the innermoſt of the two, that is the greateſt cape, a halfe hande pikes length to the ſouthwards of the outermoſt, and then they ſhall ſtand a little more ſoutherly then eaſt from you; keepe them ſo ſtanding, and ſaile ſo right in, and you ſhall not miſſe to fall righ with the ontermoſt buye, which lyeth at low water in twenty foote. Or elſe if you come from the northwards alongſt by the ſtrand, and keepe the ſounding of the ſhore in twenty foot at low water, or ſomewhat more, according as it ſhal have flowed, you ſhall fall right with the outermoſt buye: or if you keepe neerer to the ſhore in eleven or twelve foote, then you ſhall fall with the ſecond buye. From the outermoſt buye to the ſecond, ſaile yet right in with the capes, which lieth in ten or eleven foot upon the ſhouldeſt of the channell, right thwart of the outermoſt poynt of the land on the north ſide, but nearer the Honde-plate thē the poynt which lyeth off from the north poynt, ſo that you muſt goe about to the northwards of it in ſayling in, you may alſo for need goe to the ſouthwards of it, but alongſt to the north wards it is broadeſt, but in all it is not wide. Frō the north poynt runneth of a little taile, where of you muſt take very good heed, it is very ſteepe, upon it the ſea breaketh and rippleth very much: with weſterly windes the ſea is all in a breach all over that northerne channell, thwart of this foreſaid ſecond buye, ſo that to ſee to, it ſheweth it ſelfe as if it were not a channell; but feare not to runne cloſe alongſt to the northwards of the foreſaid ſecond buye, thwart of it you ſhall not have leſſe at halfe flood then thirteen foot water, or there abouts. From the ſecond buye to the third the courſe is a little more northerly: you may ſee perfectly, enough from the one to the other. When you come to the third buye, the innermoſt cape ſtandeth a litle to the northwards of the outermoſt. This third buye lieth at the north end of the Raſſes alſo in eleven foote as the ſecond, which you muſt alſo goe about to the northwards of. Betwixt the ſecond and the third in the fareway it is alſo all one depth. The north ſhore is ſteepe about the ſecond buye, but towards the third buye it is ſomewhat flatter. For to ſail in at the norther-channell.

The fourth buye lyeth from the third ſouthſoutheaſt upon the ſouth end of the Raſſes. The Raſſes is a great ſand-rib on the eaſt ſide of the Honde-plate, which is very ſteep, ad with low ebs commeth above water at ſom places. The Raſſes.

Betwixt the third and fourth buye it is deepe in the right fareway fourteen, fifteen, and ſixteen foot, that the Fiſhermen call the Panne, on the northeaſt ſide it is there riſing ground, which in turning to windward you may borrow of it by your lead ſo ſhowld as you wil. When the ſteeples of Monſter and Graveſand come one in the other, then you are paſt the Raſſes. The fifth buye lyeth in eleven or twelve foot water upon the eaſt poynt of the new ribbe, and lyeth from the fourth buye ſoutheaſt and by ſouth: all which buyes you muſt leave on the ſtarboard ſide in ſailing in. To the eaſtwards of it, the ſouther & norther channels come together in one. From the fifth buye to the ſixth which is the buye againſt the Polder, it is moſt one courſe as before, but you may eaſily ſee from one to the other, that you muſt leave alſo on the ſtarbord ſide; thwart of it in the fareway, it is ſixteen and ſeventeene foot deepe. Comming to the eaſtwards of that buye againſt the Polder, you ſhall ſee a houſe upon the dyke betwixt Swartewall and the head The Panne.

of

of the Brill, called the houſe of Lucht, bring that over Ambroeck, which is ſomwhat a flat ſteeple, a little to the ſouthwards of Swartwall, and ſaile ſo right in with them, untill you come before the Brill, if you deſire to ancker there and you ſhall ſo leave two buyes more on te larboard ſide. The firſt is the eaſtermoſt buye againſt the Polder: the ſecond, the buye upon the Crab, which is a great broad tayll which lyeth off from the Iland Roſenburgh untill paſt the Brill. But if you will not anckor before the Brill. But will ſaile further up, then run up right with the foreſayd markes of Ambroeck, and the houſe of Lucht, untill you come neare the ſhore, and then alongſt by it, untill you come to Heenvliet. From the eaſt end of Rooſenburgh runneth off a taile, which you might ſail within when you ſayle upwards. If you bring not the Tower of the Brill, (when you are paſt the heads of Swartewall) without or to the northwards of theſe heads, but keepe it to the ſouthwards of them, then you can not ſaile within it, but ſhall ſaile farre enough alongſt to the ſouthwards of it. A little to the eaſtwards of Heevliet goeth old Maes, the flood fallet in there very ſtrong, where of you muſt be carefull, that you be not carried upon the Wheateſand, that is a great plate of ſand, lying in the middeſt of the mouth of the ould Maes, which falleth a great wayes drye at low Water, and lyeth out with a long-ſmall poynt to the weſtwards into the Maes. For to avoyd it, you muſt look out for a wood of trees, ſtanding on the ſouth ſhore, a little to the eaſtwards of the old Maes, keep the ſteeple of Rotterdam to the northwards of that wood, and then you ſhall goe cleare of that Wheat ſand, but if you let that ſteeple come to the ſouthward of that foreſayd wood, you ſhall certainly come to touch upō that foreſayd tayle. To the northwards of the Wheateſand goeth in a deepe, which men may ſayle up in the old Maes to Dordrecht; in it lye alſo 2 buyes, he that will runne in there, let him run in by the foreſayd marks of the ſteeple of Rotterdam, & the wood of trees, ſo long untill that the ſteeple of the Brill come to a tyled houſe, which ſtandeth upon the ſouth ſide of the eaſt end of Roſenburch, and keepe them ſo ſtanding, and then he ſhall not miſſe the buye. Being paſt the old Maes, you muſt ſaile up, keeping the middle of the channell paſt Vlaerdingen unto five Sluces; from thence you muſt chuſe the ſouth ſhore, and run cloſe alongſt by it, untill you be over a little ſhowld or banke, whereupon is at low water eleven or twelve foote water, the neerer the ſouth ſhore the deeper, lying thwart over the Maes, as ſoon as you ſhall be paſt that, then goe right towards the head of Schiedam, there you ſhall have the deepeſt Water.

Delfs-haven. If you will goe to Delfs-haven, then (being paſt Schiedam) keep the ſounding of the north ſhore, and run alongſt by it untill you come before the Haven, and anckor there. But if you will ſaile to Roterdam, then runne alongſt by the north ſhore, ſo long until that Overſchie and the houſe of Spin come one in the other, then edge over, or a little ſooner unto the ſouth ſhore, and run alongſt by it, or bring the ſteeple of Vlaerdinghen (when you are paſt the head of Schiedam) over the third houſe upon the Schiedams head, and keep that ſo ſtanding ſo long untill, and the head Charlois (herupon ſtandeth a little wood of trees) come one in the other, and ſo you ſhall leave on the larboard ſide, a little ſhowld plate, that lyeth about halfe wayes betwixt Schiedam and Delfshaven, and runne alongſt to the ſouthwards of the showld that lyeth before the Haven. Upon that, foreſayd plate remaineth no more then 7 foot water, and upon the ſhowld before the Haven, but 2 or 3 foot Water, & are both very ſteep. When the foreſayd mill, and the head of Charlois come one in the other, then keepe them ſo ſtanding untill that you come thwart of the new head of Rotterdam, ſaile then towards the towne, & cloſe alongſt by it, in betwixt the Towne and the plate there you may anckor.

For to ſaile into the ſouther channell of the Maes. For to find the ſouther channell (coming in out of the ſea) before you can ſee the capes, you muſt bring the ſteeple of the Brill (which is a thick flat ſteeple without any ſpire or ſharp top upon it) eaſtſoutheaſt from you, or ſomewhat more eaſterly or ſoutherly, according as you get ſight of the capes; then bring them one in the other, and run ſo right in with them, or els if you bring the ſteeple of the Bril a handſpikes length to the northwards of Ooſtvoorn, and run ſo right in, you ſhal without ſaile run in ſight of the outermoſt buye, which lyeth at low Water in three Fathom.

From the outermoſt buye to the ſecond and third buye, you muſt ſaile yet right in with the capes; the ſecond buye lyeth in thirteen, & the third in eleven Foot; being thwart of it, the ſteeple of Goeree commeth a little upon the foot ſtrand of the Land of the Brill. The fourth buye lyeth from the third, yet neere upon the courſe right in with the capet, but a little more ſoutherly. Betwixt theſe buyes is the ſhowldeſt of the Maes ten Foot, by the fourth buye it beginneth againe to be deeper, that lyet in 11 Foot. From without unto the fourth buye, the channell is of a good bredth ſo that you may turne into windwards a good wayes on both ſides of the buyes, & borrow of the shores on both ſides by your lead, but right alongſt a litle to the ſouthwards of the buyes, is the perfect deepeſt Water. The fift buye lyeth from the fourth eaſtnortheaſt, and northeaſt and by eaſt, on the north ſide of the deepe on the Honde-plate in eleven Foote, which you muſt leave on the larbord ſide, & run in about to the ſouthwards of it. From the fourth to the fift buye alongſt to the ſouthwards of the buyes, in the right fare way, it is deepe thirteen, fifteen, ſixteen, and ſeventeen foot, and by the fift buye five Fathom. The ſixth buye lyeth from the fifth eaſt and by north in eleven Foot and a halfe, alſo on the north shore, or Honde-plate, along to the ſouthwards of it, the channell is at the narroweſt, and five and ſixe Fathom deepe, the ſouth shore is thereabouts very ſteepe, cloſe to it, it is ſixe, and ſixe fathom and a halfe deepe. As ſoone as you come paſt the ſixth buye, then commeth Maeſland-ſluce, and the ſteeple of Vlaerdingen one in the other; keepe them ſo one in the other, and runne in ſo right with them, ſo long untill that you get the houſe of Lucht over Ambroeck, and then you ſhall run farre enough alongſt to the northwards of the Polder, and by the ſide of the ſeventh buye, alongſt in the right deepe; you ſhal finde in this fareway four, and foure fathom and a half go then towards the Brill, or upwards along where you deſire to be, as is ſayd here before in the deſcription of the norther channell.

N O T E.

All theſe foreſayd depths, and thoſe which follow of the Goerees gat, are ſet there (as alſo in the Carde) according to the loweſt water of a common tyde, and it floweth there ſixe foot up and downe.

The Goerees-gat.

Betwixt the land of the Brill and Goeree, go in alſo two channels, the northermoſt is called the Quacks-deep, and is not for great ships, but onely for ſmackes, and ſmall ſhippes: the other is the Goerees-gat. Betwixt theſe two channels lyeth a great plate called the Hinder, which at low water is not deeper then five, ſixe, and ſeven foot. To the northwards of it goet in the Quacks-deepe, and to the ſouthwards of it the Goerees-gat. quacks-deep.

For to finde the Quacks deepe comming in out of the weſt, you muſt keepe the ſteeple of the Brill eaſt from you, and run ſo in, untill that a great country houſe, (which you ſhall ſee ſtand alone a little within the poynt of the Quacke) come to the ſouthermoſt ſand-hills of the land of the Brill, which shal then ſtand neare about ſoutheaſt from you, keep that then ſo ſtanding, and runne ſo right in, untill that Ooſtvoorn come to the weſtermoſt or ſouthermoſt ſand-hills, then runne in alongſt by the ſtrand ſomewhat more ſoutherly, until that Goeree com to the eaſtwards or within the ſand-hills, and then you ſhall bee paſt the eaſt point of the Hinder, which the Pilots call the Buyen, runne then towards Goeree, or to the eaſtwards, to Hellevoets ſluce, where you deſire to be.

Goerees gat. For to ſaile in at the Goerees gat, you muſt bring the ſteeple of Goeree, and the cape upon the land of Goeree, one in the other, and then they ſhall ſtand eaſt & by ſouth, and eaſtſoutheaſt from you: or if you can not ſee the cape, then bring the ſteeple eaſt and by ſouth, or eaſtſoutheaſt from you, according as you ſhall have the winde, ſaile in

right with it, untill you come hard aboord the ſtrand, and within a bowles caſt in alongſt by it, eaſt and by north, and eaſt in, ſo long untill that the land doe fal away more to the ſouthwards: thereabouts runneth off from the ſhore a little taile which men might ſaile within, in going out, but not in comming in, there you muſt edge a little further off from the ſhore, being paſt that, luffe up againe towards the ſhore, or haven of Goeree. and anckor there before it; or els if you wil run up to Hellevoet-ſluce, then bring the mill which ſtandeth to the weſtwards of Goe-ree, a little to the northwards of the ſteeple of Goe-ree, keepe them ſo ſtanding, and ſaile ſo up to Hellevoet-ſluce, and you ſhall not come neare the plate which lyeth over againſt or to the the ſouthwards of Hellevoet-ſluce.

For to saile to Hellevoet-sluce.

When you ſaile in at the Goerees gat with a bare ſoutherly winde, and that you can not bring the cape and ſteeple one in the other, you may bring the ſteeple well eaſt-ſoutheaſt, or a great capſtone bars length to the northwards of the cape, & then run over untill you come againſt the ſtrand, and ſo you ſhall runne over the taile of the Hinder in fourteen and fifteen foot a low water, but when the cape and ſteeple are one in the other, you ſhall not have leſſe then nineteen or 20 foot. Being come over the taile of the Hinder, in the right deepe, it is ſixe, ſeven, and eight fathom deepe, the neerer the ſtrand the deeper water. A little within the cape, or almoſt thwart of it, is the narroweſt of the channell, further in it is wider; on the north ſide towards the Hinder, it is riſing ground, but the ſouth ſhore alongſt by the ſtrand is very ſteepe.

Of the tydes & courſe of the ſtreames, about theſe foreſaid places.

UPon the Wieringer flat maketh full ſea a ſoutheaſt or northweſt Moone.

Before Teſſel, in Coopvaerders road, an eaſt ſoutheaſt, and weſtnorthweſt Moone.

Without the grounds or ſhoulds of the Teſſell, an eaſt and weſt Moone maketh the higheſt water, and in the entring of the Teſſel, an eaſt and by ſouth, and weſt and by north Moone: but the flood goeth a good while longer in. And likewiſe runneth the ebbe alſo longer out, then the loweſt water. When the Moon is ſouth, or ſomewhat more weſterly, it beginneth apparantly to flow without on the ſtrand, and likewiſe upon the ſhoulds.

The fore-flood, and the after-ebbe out of the Teſſell, fal both one with the other northnortheaſt thwart over the grounds and channels, and right out at the Spanjards channell, untill halfe flood: and to the contrary, the fore-ebbe, with the after-flood fall right in at the Spanjards channell ſouthſoutheaſt over the ſouth grounds, and thwart over the Slenk and the other channels, untill half ebbe. A little while before half flood, the flood beginneth to runne right in at the channell, and againe a little before halfe ebb, the ebbe beginneth to ſet right out at the channell. Therefore he that will ſaile into the channels, muſt reckon his tydes very well, wherein conſiſteth very much. Without before the channell in the ſea, the tydes turneth about with the Sunne, ſo that when a ſhippe doth lye at an anckor without the channels, & hath niether good nor hurt of the waves of the ſea, it ſhould have but a little ſtill water.

In the North ſea the tyde falleth round, more then halfe tyde, upon the Broad fourteens, it turneth about with the Sunne or the Moone, and falleth but a quarter tyde right alongſt the ſea. Nearer the coaſt of Holland & Zealand, the tyde falleth (whether it be flood or ebbe) ſomewhat ſloping towards the land, but in the midſt of the tyde, it falleth right alongſt the ſea, and in the laſt of the tyde, it ſetteth to ſeawards, towards the weſtwards or the northwards.

Betwixt the Marſdeepe and the Maes in the fareway, the fore-flood commeth out of the north ſea, & turnet about with the Moone, falling towards the land northeaſt, and northeaſt and by north.

The fiſhermen of the Maes ſay, that when they are out of ſight of the land, they can perceiue in calme weather by the turning about of the tide, whether they be to the northwards or to the ſouthwards of the Maes. Somwhat to the ſouthwards of the Maes, the after-flood turneth about againſt the Sunne, but to the northwards of the Maes, it turneth about with the Sunne, untill the laſt quarter, and then it ſetteth towards the ſhore, or the coaſt next unto it. They ſay alſo, that alongſt the coaſt of Holland, men have no helpe of the ebbe in turning to windwards towards the Maes, except they be without ſight of the land, becauſe there goe no ebbes by the land, when the wind is to the ſouthwards of the weſt.

Before the Maes a ſouthweſt and by weſt, & a northeaſt and by eaſt moone maketh a high water.

Before the Brill a ſouthweſt and ſouthweſt and by ſouth, and northeaſt, and northeaſt and by nort moone.

Before the old Maes a ſouthweſt and northeaſt Moone.

Before Rotterdam a ſouthweſt & by weſt, & northeaſt and by eaſt moone.

Before Dordrecht a weſtſouthweſt Moone.

In the Goerees gat, and before Goeree, a ſouthweſt and by ſouth, and ſouthſouthweſt Moone.

Before Hellevoet-ſluce a ſouthweſt and by ſouth Moone.

Betwixt the Marſdeep and the Maes in the fareway, the foreflood commeth out of the north ſea, and turneth about by little and little northeaſt and northeaſt and by north towards the land.

In the ſea thwart of theſe places, (without ſight of land) it is a poynt, or a poynt & a halfe later full ſea, the further from the land the later.

Not very long after that the flood beginneth to go without the Maes, it doth begin alſo to go into the Maes, but the after-flood falleth ſtrong in, and ſo likewiſe in the Goerees gat. Cloſe before the channells by the land, the tyde turneth about with the Sunne, ſo that when the after-flood falleth into the channels, it turneth to the ſouthwards, and becommeth again a running ebbe: the after-ebbe falleth againe thwart off to ſeawards out of the channels.

Of the Depths and grounds about theſe place.

Five or ſixe leagues without the Teſſell, lyeth the Broad fourteens, lying from thence northeaſt with a ſmall tayle which lyeth about north from the Teſſell, and northweſt from the Flye, to the ſouthwards it runneth with the eaſt ſide againſt Catwyck or Scheveling, but the weſt ſide lyeth off at leaſt eleven or twelve leagues thwart off to ſeawards from Nortwyck and Catwyck, it is a banck moſt of fourteen fathō deep, in ſome places ſomewhat more or leſſe. Betwixt it & the land it is againe eighteene & nine teene, and to the northwardes twenty fathom deep. When you come over it about the Teſſell or the Flye, and come againe in 16 or 17 fathom towards the land, then you ſhall begin to ſee the land.

There runneth off to the ſouthwards into the ſea from the coaſt of Holland three ſmall banckes or ribbes, which are ſomewhat broad and ſhowld by the land, and run off ſharp and deepe to the end, the firſt the firſhermen call the Small-eight, and beginneth a little to the ſouthwards of Egmont upon the ſea: the ſecond the Wtterrib thwart of Wyck upon the ſea: the third and ſouthermoſt the Hard, a little to the nortwards of Santfoort.

The high ſteeples of Holland & Weſtfrieſland, as Egmont-within, Wyck upon the ſea, Santfoort & other more, men may ſee before they can ſee thee ſand hills five leagues without the land, in 14 or 15 fathom, that is, upon the ſout end of the Broad-fourteenes, but Camperdownes, and the ſand-hills thwart of Harlem, they may ſee before they can ſee ſome of the ſteeples. The ſteeple alongſt the coaſt are moſt of them flat, except the Beverwyck, Schevelinghen and Santfoort.

Before the Maes and Goeree men may ſee the land in fourteen and fifteen fathom.

Courſes & Diſtances.

From Teſſell to the Maes, ſouthſouthweſt	24 leagues
From Teſſel to the Heads, or the Strait between Callis & Dover, ſouthweſt ſomewhat ſoutherly	53 leagues.
From Theſſell or Marſdiep to Callis cliffe ſouthweſt and by ſouth	53 leagues.
From Teſſell to the North Foreland ſouthweſt	48 leagues.
From Teſſell to Orfordneſſe weſtſouthweſt	37 leagues.

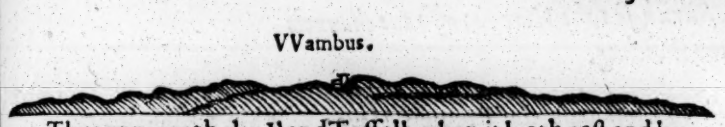
From

From Teſſell to Yarmouth weſt, and weſt and by ſouth 33. leagues.
From Teſſell to the Shield, or Cromer weſt. 40. leagues.
From Teſſell or Marſdiep to Flambrough head weſtnorthweſt 60. leagues.
From the Marſdiep to Lieth in Scotland n.w. and by w. ſomwhat northerly 100. leagues.
From the Marſdiep to Newcaſtle w.n. weſt ſomewhat northerly 83. leagues.
From Teſſell to Bockeneſſe northweſt, and n. weſt and by n. 117. leagues.
From the Marſdiep to Aberdine n.w. ſomewhat northerly 113. leagues.
From the Marſdiep to the Liet of Berghen in Norway north 117. leagues.
From the Marſdiep to the north end of Hitland n. n. weſt. 160. leagues. And then you ſhall fall about five leagues to the eaſtwards of the land.
From the Marſdiep to the Naze north and by eaſt 93. leag.
From the Naes or Goeree to Dover, ſouthweſt and by weſt ſomewhat eaſterly 35. leagues
From the Maes to the north Forland, weſt ſouth w. weſterly 32. leagues.
From the Maes to the Naze, weſt 29. leagues.
From the Maes to Hitland northnorthweſt 180. leagues

Heights.

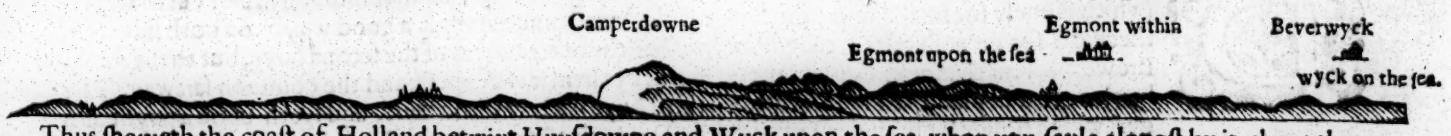
The Marſdiep lyeth in three and fifty degrees, ſaile out of the north ſea, (being in that height) eaſt on, and you ſhall fall right with it.
The north ſide of the Maes lyeth in 52. degrees.

How theſe Lands doe ſhew themſelves at ſea.

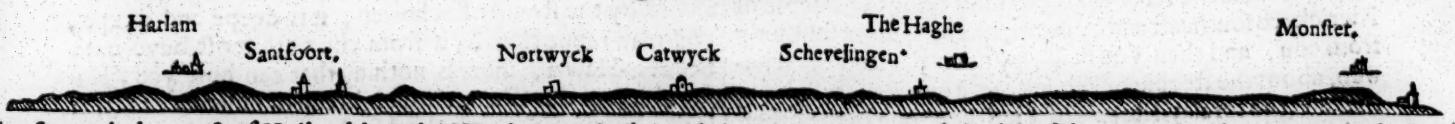


Thus appeareth the Iland Teſſell, when it lyeth eaſt and by north from you.

Huyſdowne ſheweth it ſelfe thus, when it is eaſtſoutheaſt from you.



Thus ſheweth the coaſt of Holland betwixt Huyſdowne and Wyck upon the ſea, when you ſayle alongſt by it, about three leagues from the land.



Thus ſheweth the coaſt of Holland, betwixt Wyck upon the ſea, and the Maes, when you ſaile alongſt by it about 2 leagues from the land.

Theſe two figures belong to the AA one to the other.

When Graveſand is ſoutheaſt and by ſouth from you, being a halfe league without the land; then the coaſt of Holland to the northwards of the Maes ſheweth it ſelfe, as is portrayed in the two figures here above.

When you are open before the Maes, the land to the northwards of it ſheweth it ſelfe thus.

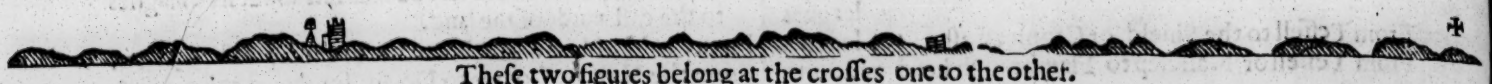
Theſe two figures one to the other.

When you are open before the Maes, being northweſt and by weſt from the Brill, then the land to the ſouthwards of the Maes ſheweth it ſelfe, as is prefigured in the two figures here above.

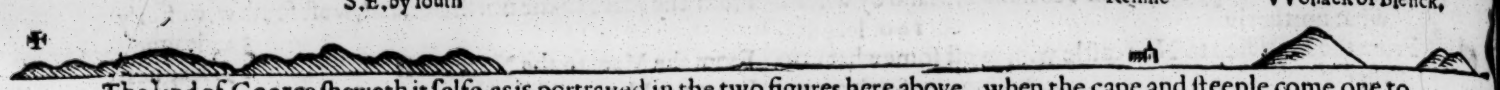
The two figures following belong unto this at the AA and BB, one to the other. Goerees.

When you are before the Goereeſe gat, about a league without the Land, then the land on both ſides of it ſheweth, as is demonſtrated in the three figures here above.

Theſe



Theſe two figures belong at the croſſes one to the other.



The land of Goeree ſheweth it ſelfe, as is portrayed in the two figures here above, when the cape and ſteeple come one to the other, and that you are a league and a halfe without the land.

The ſecond Demonſtration.

Wherein

Are ſhewed the channels of Brewers-haven, Sierick-ſea, the Vere, as alſo the channels of Zealand, in the Whieling.

BEtwixt the land of Goeree and Schowen, there goe in alſo two channels, the northermoſt is called the Kevitſen, (which is onely for ſmall ſhipps) the ſouthermoſt for great ſhippes is called the Brewers havens channell. Betwixt them lyeth a great dry ſand, called the ſpringer, which floweth not under, but with very high floods.

Kevitſen. For to finde the Kevitſen, you muſt bring the ſteeple of Zierickzee ſoutheaſt and by ſouth, or a little more ſoutherly from you, and then you ſhall eſpy upon the land of Schowen, about the ſteeple of Zierickzee, a wood of trees, bring that and the foreſayd ſteeple of Zierickzee one in the other, and runne ſo right in untill you come againſt the ſand, ſo ſhowld or neare as you can, and then you runne farre enough alongſt to the weſtwards of the weſt head. When you come within the weſt head, againſt the ſand on the ſouth ſide, then goe in eaſt alongſt by the foreſaid dry ſand the Springer, at the end of the aforeſayd dry ſand ſhooteth off alſo a poynt under water, the which you muſt ſound for: being paſt that, runne then directly with Brewers-Haven, as is ſhewed in the Card. In this channell it is upon the ſhowldeſt ten foot deepe.

The Brewers-Haven.

Before the land of Schowen thwart of the Brewers haven channell, lye three banckes, the outermoſt, called the Breebancke, lyeth a kenning without the land, upon which it is 7. fathom deep, and againe within it, 19. fathom deep, upon the ſecond nearer the ſhoare, it is five Fathom deepe, and againe within it 7. fathom deep; the third, called the Ooſter, lyeth cloſe by the Land, and runneth into the eaſtwards, betwixt Schowen and the land of Goeree, upon it is no more then ſix foot water, when you will ſayle into the channell of Brewers-Haven, you muſt goe about to the Weſtwards of it.

Upon the weſt end of Schowen ſtand two Capes, bring then one in the other, and runne ſo right in with them, untill the ſteeple of the Reniſſe (which ſteeple is ſomewhat ſharpe) come to the Blenck or Wolſack, that is, a high white ſandhill, (which ſheweth it ſelfe out in whiteneſſe high above all the other Sand-hills) then leave the Capes, and runne in by the markes of the Blencke and Reniſſe, untill that Outdorp, (a little white ſteeple upon the Land of Goeree) come to the ſteeple of Goeree, and ſo you ſhall go in betwixt the Ooſter of the larboard ſide, and the Hill on the ſtarboard ſide, and alongſt a little to the ſouthwards of the outermoſt buye, untill you come within the Ooſter. When that Outdorp and Goeree are one in the other, then leave alſo the foreſaid markes of Reniſſe, and runne in right with Goeree, untill that you come by the ſecond buye; or (if there lye no buyes) untill that the Bommenee come a little without the Oxetayle, that is a point of Schowe, lying out a litle to the weſtwards of Brewers-haven, ſayle ſo right in untill you bee paſt the Brewers-Haven. This Channell of Brewers-Haven, is a broad and deepe Channell, very convenient for great ſhips, he that muſt turn in or out to windewards, may runne alongſt a good wayes on both ſides, as well of the outermoſt as of the ſecond buye, but to the ſouthwards of them it is deepeſt, and the common farcway. The third buye is a buy with a tayle, and lyeth upon a poynt of a tayle, which off from the Ooſter, which you may not goe to the northwards of, untill it were very cloſe alongſt by it: all alongſt by the ſtrand of Schowen, it is deepe and ſteepe, you may runne cloſe by it from the outermoſt buye unto Brewers-Haven, there is nothing that can hurt you, the ſhowldeſt of this Channell is eighteen or nineteene foot, at leaſt a league without the land in the coming in betwixt the Ooſter and the Hill: Further inwards it is foure, five, ſix, and ſeven, and at ſome places ten and eleven Fathom, as it is ſhewed in the Carde by the numbers of Feet, and all at low Water.

Reniſſe. VVolſack.

The Keel, the Newdeep, the Velt, and the Roompot.

Men may run into Zierickzee through divers channels, through the Keel, the Newdeep, the Velt, & the Roompot. For to ſayle through the Keele, then run in as is before ſayd of the channell of Brewers-haven, firſt in by the marks of the Blenck and Reniſſe, ſo long untill that Ter Veer come to the weſtermoſt point of Schower, caled the Hoot, keep them one in the other, or to the other, and run ſo in untill you come by the ſtrand, and then forth by it, & you ſhall find ſo in the Keel at the ſhowldeſt, eighteen and nineteen Foot, and comming againſt the point of the Hoot, foure and five fathom. Betwixt the Hoot and the New-ſand (which falleth at the eaſt end at ſome places dry) run all alongſt by the land of Schowen, untill you come thwart of the ſouthermoſt cape of Schowen, edge then ſomwhat off from the ſhore towards the Baniard, for to avoyd a Share which lyeth off from Schowen, which you might ſaile within when you come out of the ſea. There lyeth a buye upon the point, wherby it is good to be known: being paſt that, run all alongſt by the ſhore, untill you come to Zierickzee: ſomewhat within the buye, upon the poynt of the ſhare, there is lately laid another little Buy for thoſe that wil ſaile that waies out, for that they may not ſayle upon the eaſt ſide of the foreſaid ſhare.

For to ſayle in at the New-deepe, you muſt looke out for two ſtone fire-beakons, ſtanding a little to the ſouthwards of the foreſayd capes of the Channell of Brewers-Haven, bring the innermoſt a handſpikes length to the ſouthwards of the outermoſt, and runne then right in with them, and then you ſhall runne in betwixt the Hill and the New-Sand in ſixteene, ſeventeene, and eighteene foot, goe in alongſt by the foreſayd markes, untill that you come by the ſtrand, and then you come into the Keel. If you bring the fire-beakons one in the other, and ſayle ſo right in, you ſhall then runne over the tayle of the Hill in eleven or twelve foot.

The New-deep.

The

't LANDT VAN GOEREE

Nolle

Brouwers haven

Zierickzee

Kerckwerve

Nieuwerkercke

Esse Steert

't LANDT VAN SCHOUWEN

't Landt van Cats

Cohns plaet

Duytsche graadt

Spaansche graadt

Engel en graadt

Ketgeen

Oriandt

Poelvoet

Bos bomen

Straatkercke

De Val

Nortwelle

Koukerck

Westkercke

Haemstede

Batch

West Schouwen

Blenck of wolsacken

Vlissinghe duyn

Noordwest aendt Wagenbaen

Hoofd

Renisse

Springer meest altijt droogh

Dosterbit

Kattenbroeck

De Lacgbrem

Kantzen

Den Oosterd

De Keel

Schelsdam

Oudt Land

Wielle plaet

Sandyck

Der Gapinghe

Rooskercke

Polder

Oost Cappel

't Hoofd

Veer gat

Den Banjaert is aen alle kanten Steyl en loopt by nast dreuge

Domburgh

Oosterens

Steen Banck

Rammekens

Oost Souburgh

Doorn belle

Innerdingen

Oosterse Rassen

graadt Lieues d'Allemaigne 15 en un degre

graadt Lieues d'Espaigne 17½ en un degre

een graadt Lieues Angl. et Franc. 20 en un degr

Pascaarte vande WIELINGHE

't Veer gat 't gat van Zierickzee en Brouwershaven Nieulycx beschreven door Iacob Aertsz. Colom

Carte Marine de Trous de Wielinges et aussi les Trous de Zierickzee. et der Veere,

VLAEN

DEREN

Rammekens
Retem
Oost Souborgh
Vlissingen
t'West Souborgh
Breskens
De Nol
Diefs hoecke
Koukercke
Inneredyn
Doorn helle
Oosterr Rassen
Doerley
Drooge Rack
De Wielinge
De Spleet
Hard Banck
Inwaert
Rack
Krake Saar
Inner Wielinge
Paerde mart
St Lambert
Der Sluys
t'Slot
St Anna
West Cappel
Knocken
Heyst
Vierhoot
Lisseggen
Staker
Blanckenberg
Schans
Wendyne
De Bruggelingen

The Velt.

Markes of the Banishett,

The Polle,

Mayd. Vnrett.

For to sail in at the Roompot.

wolplate.

The Hill is a ſand ſomewhat flat, which men may come neere to the South ſide by their lead, but the Newſand is very ſteepe, and the ſea breaketh very much upon it. When as that you come in by the ſtrand into the Keel, then run in alongſt by the ſtrand, as is before ſaid in the deſcription of the Keel.

The Velt. For to ſaile in at the Velt, you muſt obſerve theſe markes here under deſcribed: almoſt upon the ſouthermoſt end of Schowen ſtandeth a tower alone in the field, with a cape upon it, called Weſt-ſchowen, bring that tower a capſtone barres length to the ſouthwards of the foreſaid ſouthermoſt cape of Weſtſchowen, and runne ſo right in, and then you ſhall runne through betwixt the Newſand and the Baniard and ſhall find upon the ſhowldeſt (thwart of the outermoſt poynt of the Newſand) twelve and fourteene foot; being paſt that, there will be againe fifteen, ſixteen, and eighteen foot; and by the ſtrand twenty foot deepe. When you come me in by the ſtrand, runne alſo alongſt by it untill you come even to Zierickzee, as here before is ſayd of the Keel, and Newdeepe. When you runne in at this channell, you muſt take very good heed of the Banniard, which is very ſteepe upon the north ſide; cloſe to it, there is three, foure, and five fathom, but thwart of the foreſayd ſtrand which lyeth off from Schowen, ſixe and ſeven fathom deep. The Newſand is indifferent flat on the ſouth ſide, that you may borrow of it by your lead.

The veer-gat.

Markes of the Baniart. For to ſayle in at the veergat (comming from the northwards) you muſt keepe Weſtcappell not to the weſtwards of ſouth from you, and then you cannot come to teere the Banniart: but if you bring Weſtcappel to the weſtwards of the ſouth from you, you ſhould lightly ſayle upon the Baniart, runne ſo right with Weſtcappell, untill that middelbrough come over Eaſt-cappell, then you are to the end of the Banniart, ſayle then right with Eaſt-cappell and Middelbrough, untill that Cortgeen come through or a great capſtone barres length to the Southwards of Weſtkerck. that are two towers ſtanding in the ſuncken land, and ſhall be then about eaſtſoutheaſt from you, keepe theſe towers ſo ſtanding, and run in ſo right with them, and you ſhall runne in ſight of the firſt buye of the Veergat. In the Veergat lye three buyes with two bottomes, of faſhion like great Hogſheads, which you muſt leave all on the ſtarboard ſide, Before you come to the firſt buye, you ſhall ſayle by another buye on the larboard ſide, lying upon
The Polle. the poynt of the Polle, which is a poynt of the Banniart, that is, a Peare buye, of faſhion like all other ſeabuyes that lye in the Maſe or elſwhere. The foreſayd firſt buye in the Veergat lyeth in three fathom and a halfe. From the firſt to the ſecond and third buye, the courſe is Southeaſt and by eaſt, or ſomewhat more ſoutherly, but you may eaſily ſee from the one to the other. The ſecond and third buyes lye in two fathom, each upon a point of a plate called the Maide. Over againſt the third buye lyeth a ſhowld
Mayd. Vnreſt. called the Vnreſt, which lyeth with a long ſharpe poynt towards the third buye, ſo that it is not there very broad betwixt them, therefore you muſt runne cloſe alongſt to the northwards of the buye: betwixt the buye and the foreſayd poynt of the Vnreſt, it is not deeper then twelve and thirteen foote, but thwart of the firſt and ſecond buye, it is broad and deepe enough. Being paſt the third buye, ſayle then right to Ter-veer. Over againſt Ter-veer lyeth a plate, called the Scotchman, which you have onely to avoid.

For to ſail in at the Roompot. If you will goe in at the Roompot to Zierickzee, and that you bee come betwixt the foreſayd Peare buye upon the point of the Polle, and the firſt or outermoſt buye of the Veer-gat, then commeth Domburgh to the Hoot, which is a white ſand-hill upon walcheren, almoſt of faſhion like the Woolſacks upon the land of Schowen: keepe them one in the other, and you ſhall runne alongſt by two buyes more, which ſhall lye on the larboard ſide alongſt by the Polle, and you ſhall ſee one buye with a tayle
wolplate. lying upon the weſt poynt of the Woolplate, over againſt the third buye of the Polle: betwixt theſe two buyes you Muſt run through, leaving that with the tayle on the ſtarboard ſide, and runne about by it to the eaſtwards. There lye alſo two buyes with tayles, (beſides the foreſayd) upon the Woolplate, you may eaſily ſee from one to the other, theſe you muſt leave on the ſtarboard ſide, and runne alongſt to the northwards of them, about eaſt ſoutheaſt on, ſo long that the ſteeple of Koukercke (upon Schowen) come even without the poynt of Schowen, runne then right with that poynt, and about by it, and then alongſt by the ſhore unto Zierickzee. When that you runne towards the poynt of Schowen, then you ſaile through betwixt two buyes more, the one lying on the larbord ſide, upon the eaſtermoſt poynt of the Baniart, or Hoochplate, and the other with a tayle on the ſtarboard ſide, upon the poynt of another plate called Poolvoet, lying betwixt the land of Showen and Oreſand. Al the buyes with tayles men muſt leaue (in ſayling on) the ſtarboard ſide, and theſe without tayles on the larboard ſide.

The Fiſhermen runne (by day) moſt about to the ſouthwards of the Poolvoet plate, and leave the foreſayd buye with the tayle, then on the larboard ſide, that plate is ſomewhat flat, that men may borow of it by their lead, but they muſt ſound quick: but by night they runne by Schowen cloſe alongſt by the ſhore, which is exceeding ſteepe and needle too.

The channell betwixt the Iland Walcheren and Flanders, having divers deepes and channels, where men may ſaile in and out through with great ſhippes, at the Botkill, the Doorloye, the Splete, and the Wieling. It is commonly called after one of the chiefeſt of the ſame, with the name of the Wielings. The greateſt ſhowlds, betwixt which theſe foreſayd channels doe runne through, are: The Raſſes, the Raen, the Engliſh Polle, and the innerbanck. The Raſſes lye alongſt the weſt ſide of Walcheren: The Raen to the weſtwards of it: The Engliſh Polle betwixt them and the coaſt of Flanders, lying off to the weſtwards with a long ſmall ribb, unto thwart of Oſtend. The Inner-banck lyeth betwixt the eaſt end of the Engliſh Polle & Caſand, which is alſo called the French Poll, or the Ript.

The Raſſes. The Raen. The Engliſh Poll. the French poll.

The Bot-kil.

For to ſayle out at the Bot-kill, you muſt run from Flu-ſhing within 2 cables lengths alongſt by the ſhore, through betwixt the land & the Geer & the Raſſes, the ſhore is very ſteepe, ſo that men may come cloſe by it with great ſhippes without any danger, the Raſſes are flat on the e. or the inner ſide towards the land. To the eaſtwards, or to the ſouthwards of Souteland in that fareway it is 5 & 6 fathom deepe, but to the northwards, or to the weſtwards it is deeper, and thwart of Weſtcappel 8 & 9 fathom. When the Church of Weſtcappel (which hath a flat ſteeple) cometh over the mil thwart of that runneth a channnell through betwixt the n. & e. Raſſes w. ſ. w. into the ſea, where remaineth at low water no leſſe then 2 fathom water, keepe Weſtcappell & the fore-
Markes of the Botkil. ſayd mill one in the other, & runne out ſo by them. When Buyens Church commeth over the foreſaid mil of Weſtcappell, then keepe them one in the other, & you ſhal run then larboard ſide. & a ſand called Caloo on the ſtarboard ſide. In the Botkil is not leſſe thē 4 f. & a halfe depth, but upō both the Raſſes remaineth at low water, no more then 2 foot & a halfe, and upon Calloo three or foure fathom.

To the northwards of the ſand Calloo lyeth yet a plate called the Quernes, lying northwards almoſt untill thwart Quernes. of Domburgh, betwixt them both is a channell of foure or five fathom depth, called the Eaſter-gat; For to ſayle out there, or to finde it comming out of the ſea, you muſt bring Weſtcappel to the northermoſt head, which is a head very good to be knowne, and run in or out therby. Betwixt the Quernes & the land goeth out yet a Land-deep of three Lād-deep fathom & a halfe. For to find that comming in out of the ſea, you muſt runne to the ſhore, thwart of Domburgh (which is a ſharpe ſteeple) into 3 fathom, or 2 fathom & a halfe, and keepe the ſounding of the ſhoare ſo neare as you pleaſe, and runne in ſo alongſt by the eads, untill you be come within When you come in at any of theſe channels, and are come

ſo farre to the eaſtwards, as betwixt Buyens church & Southland, & that you muſt turne to windwards with an eaſterly wind, then you may ſail through betwixt the eaſter Raſſes, & the plate to the eaſtwards of it, called the Geere, and ſo come out in the broad channell into the Dorloy and Splete & run ſo about to the ſouthwards of the Geer unto Fluſhing.

The Geer

About two leagues without the land of Walcheren lyeth a long ſmall banck, lying ſouthweſt & northeaſt, called the Stone banck, upon the middeſt whereof there is no more then two fathom, & upon the north end of it 3 fathom water. He that wil ſaile in or out at the Botkill, or the channels to the northwards of it, to wit, the Eaſtergat or Land-deep, muſt ſaile about either to the northwards or to the ſouthwards of that Stone-banck: When Middelburgh cõmeth over Domburgh, then are you thwart of this Stone-banck but if you bring Midleburgh halfwayes betwixt Domburg & Eaſtcappel, & ſo ſail ſo to the land, then you runne along to the northwards of it. Or els if you bring Weſtcappel eaſt ſoutheaſt from you, in a black valley of the ſand-hills, & ſayle ſo right in, then you runne alongſt to the weſtwards or the ſouthwards of it. Within the Stone-banck it is againe 8, 9, & at ſome places 10 fathom deep. Vpon the foreſayd marks & courſe, to wit, Weſtcappel eaſt ſoutheaſt from you in the black valley, you may ſayle right in at the Botkill: when that Eaſtcappel commeth then ſomewhat through Domburgh or to the Eaſtwards of it, then you ſhall get deeper water; goe then towards the ſhore, & ſo alongſt by it, as is before ſayd. A little from the ſouthweſt end of the Stone-banck lyeth yet another, but it is not long, called the Oyſterbanck upon it remaineth at low water about 4 fathom Water.

Stone-banck.

Marks of the ſtone-banck.

Oyſter-bancke.

The Doorloy.

For to ſaile From Fluſhing out at the Doorloy with ſhips that draw much water, you muſt ſet ſayle when the water is flowed an houre or two, for to come with halfe flood, or againſt the higheſt water to the ſhowlds, goe from Fluſhing firſt alongſt by the ſhore, & then weſtnorthweſt, untill that Weſtcappel come within two ſhippes length to the poynt of the ſandhils, to wit, that Weſtcappel ſtand ſo much within the weſt point of the ſand-hils, bring that alſo not further out, not neerer to the point of the ſand-hills, for els you ſhould ſaile upon the Raen. When that Weſtcappel ſtandeth ſo, & *S.* Anne (a flat ſteeple in Flanders to the Weſtwards of Sluce) ſtandeth amongſt the eaſt ſand-hills of Caſant, then goe northweſt and by weſt out at the Doorloy. When that S. Anne commeth then to the weſtwards of that foreſayd ſand-hill, then commeth the caſtle of *S*luce, under or behinde that ſand-hil, keepe that under, or right to the eaſt ſide of the foreſayd ſand-hils, & then go out northweſt & by weſt, & you ſhall goe cleare of the Raen and the Raſſes. If you bring Weſt-cappell without the ſand-hills before that S. Anne come without the foreſayd ſand-hills of Caſant, then you ſhall be too farre to the northwards, and too neer the Raſſes. Or if you bring S. Anne without the ſand-hills of Caſant, before Weſt-cappell come to the end of the ſand-hills, then you ſhall be too farre to the ſouthwards, & ſhall come againſt the Raen, but when you bring Weſtcappell to the point of the ſand-hill, & S. Annes without the ſand-hills of Caſant one as ſoone as the other, then you are amid the channel of the Doorloy right in the fareway.

For to find the Doorloy coming in out of the ſea.

For to find the Doorloy comming in out of the ſea, you muſt run to the Raen by the lead, untill that Weſtcappell come within a maſts length neere to the Sconce, & ſaile ſo right in, or take the ſounding of the Raen, & run alongſt by it, untill that S. Anne come to the foreſayd eaſt ſand-hill of Caſant, then go in alongſt ſoutheaſt and by eaſt, & you ſhall ſoon be over the ſhowldeſt, & find deeper water, but you muſt reckon well your tydes, for the flood falleth into the Doorloy firſt ſouth (as alſo the after-ebbe) afterwards ſ. ſ. e. & at laſt to the ſouthwards. Therefore if you will goe in at the Doorloy with a fore flood, you muſt goe at leaſt eaſtſoutheaſt, or els (if you ſhould go in upon your direct courſe you ſhould lightly be carried againſt the Raen. Cõming the out of the ſea alongſt by the Raen, untill that S. Anne be hidden amongſt the ſand-hils of Caſant, then goe on eaſtſoutheaſt, untill that Weſt-cappell come within the poynt of the ſand-hils, & then run boldly right on with Fluſhing.

In dark weather men may ſound alongſt by the Raſſes; whẽ that you keep the Caſtle of Sluce to the eaſtwards of the foreſayd ſand-hill upon Caſant, thẽ you cannot take hurt of the Raen, but when the Church of Sluce ſtandeth to the weſt ſide of the foreſayd ſand-hills, then you are thwart of the ſhowdeſt of the Raen.

The Splete.

For to ſayle from Fluſhing out at the Splete, you muſt go on firſt (as is beforeſayd) weſtnorthweſt, untill that weſtcappell come almoſt to the poynt of the ſand-hills, but not without it, or that the ſteeple of Middlebrough come to the Inner ſand-hill, then goe weſtſouthweſt, and then you run out at the *S*plete, which is more then a great halfe league broad, & at low water upon the ſhowldeſt four fathom & a halfe deepe. Betwixt Southland and Dyſhoeck lyeth a high ſand-hill, which is at the eaſt end ſomewhat ſteepe, called the Doorne-hill, to the eaſtwards of it lyeth another ſand-hill, which is ſomwhat long, not altogether ſo high as the Doorne-hill, with a clift or little dale in it, which doth (as it were) divide the long ſand-hill in two ſand-hills, the ſouthermoſt is called the Inner ſand-hill, becauſe that to the ſouthwards of it there are no more high ſand-hills. When that the ſteeple of Middlebrough cõmeth over that Inner ſand-hil, or in that foreſayd cliſt, & keepe that over it or in it, then you runne out at the Splete, & can take no hurt neither of the Poll nor the Raen.

Sterick through the Raen

Doorn-hill.

Inner ſandhill.

The Engliſh Poll is ſteepe, but with eaſterly windes men may borrow of it by the lead. The Raen is flat on the Inner-ſide as well as on the out ſide, ſo that men may ſound out alongſt by it all the Splete when you cannot have ſight of the foreſayd markes in dark weather & it is ſo broad, that men have an halfe houres worke for to ſayle thwart over it but the Engliſh Poll is ſo narrow, that men may runne over it with foure or 5 caſt of the lead. When that Aerdenburgh commeth without the foreſaid ſand-hils of Caſant, then you are paſt the drye Raen, but it lyeth yet out to the weſtwards with a great flat, ſo farre to the weſtwards, that then Bridges cõmeth to the eaſtwards of Blanckenbrough in the Gallow ſherds, that are high ſand-hils to the eaſtwards of Blanckenbrough, where in times paſt was wont a Gallowes to ſtand, then you are paſt all the ſhowlds, & may goe your courſe where you deſire to be. Blanckenbrough hath a flat ſteeple ſomewhat higher (but not ſo thick) as Liſwegen.

Engliſh Poll. The Raen.

Marks of the raen.

From the end of the Engliſh Poll lyeth a long ribbe (about a ſhot of a caſt peece broad) to the weſtwards, untill paſt Oſtend, called the Ript, it is hard ſand, and good anckor ground. When Blanckenbrough ſtandeth ſoutheaſt & by eaſt from you, there is upon the Ript at low water ſix fathom deepe, more to the eaſtwards towardes the Engliſh Poll it is ſhowlder, but the further to the weſtwards the deeper unto the outerbanck thwart of Oſtend, A ſhot of a caſt peece to the northwards of that Ript it is deeper, and ſoft ground. Alſo when you come towards the ſouth or ſ. ſ. e. a ſhot of a caſt peece over the Ript, it will be preſently a halfe fathom deeper, & ſoft ground, that is, then the channell of the Wielinghe. Therefore when you come out of the ſea, and will ſayle in at the Splete, edge to the coaſt of Flanders, when you are (by your reckoning) paſt Oſtend, and borrow of it by your lead, untill that you get hard ground, and ſhowlder water that in then for certaine that foreſayd Ript: having found that is ſix, ſeven, or eight fathom, according as you ſhal be to the eaſtwards or the weſtwards, then edge off againe to the northwards into the ſea, untill begin to ſhowld, and be hard ground; keep ſo the ſounding of the Ript untill that you find again deeper water and ſoft ground, runne in then eaſtnortheaſt, and edge now and then to the ſouthwards towards the north ſide of the foreſayd Ript, untill that Bridges cõmeth to Liſwegen (being a flat and very thick ſteeple-or that Blanckenbrough ſtand ſouth from you, then you come thwart of the point of the Raen into the Splete. Then bring the ſteeple of Middlebrough over the foreſayd Inner-ſandhill, betwixt Southland & Diſhoeck, and run in right with it e. n. e. on, until that the caſtle of Sluce come to the eaſtwards of the foreſayd eaſt ſand-hils of Caſant, ſayle then right on with Fluſhing, and ſo you ſhall goe cleare both of the

The Ript.

Marks of the French Poll.

the Raen and the Pols. If it ſhould happen in darke or miſty weather, that you cannot ſee Middlebrough, then run in by your lead alongſt by the north ſide of the Ript eaſtnortheaſt untill that you find ſhowlding and hard ground of the banck, and ſo you ſhall run in betwixt the Raen and the banck. The weſt end of the Raen is flat, which you may ſound very well. In the channell betwixt the bauck, or Engliſh Poll, and the Raen, it is ſoft ground on both ſides, as well towards the Raen, as towards the banck, it doth begin to ſhowld, and to be hard ground. When Heyſt, that is, a high ſharp ſteeple cometh to the fire-beakon, thwart of that is the bauck, or Engliſh Poll at the ſhowldeſt, to the eaſtwards of that, the banck waxeth deeper; Being come paſt the ſhowldeſt, if you edge towards the banck, you ſhall finde deeper water, and may run over there at halfe flood with 18. foot, but it is not good to doe it, for not to ſaile upon the French Poll, but keepe all alongſt the ſounding and hard ground of the banck, and ſhape your courſe a litle more eaſterly for to avoid the Raſſes which lye thwart of Soutland, and are ſteepe. When you are come ſomewhat further in, goe then eaſt on towards Fluſhing, and you ſhall not come neare any ſhowlds. Thwart through the Raen goeth a Slenck where remaineth at low water, not leſſe then 2 fathom and a halfe water; for to finde it comming in out of the ſea, you muſt bring Aerdenburgh a little without the point of the ſand-hils of Caſand, or Weſtchappel in Flanders a little to the eaſtwards of Knock, ſaile then right with it, untill that you get deeper water, or that the ſteeple of Middlebrough come over the inner ſand-hill, and then in alongſt with it. Weſtchappell in Flanders is a ſhort flat little ſteeple, with a little ſhort blunt ſpire, or cap upon it, but Knock is a ſharp ſteeple not ſo high as Heyſt.

Slenck through the Raen

The Wielinghe and inner-Wielinghe:

For to ſaile in at the Wielinghe comming in out of the ſea you muſt run on to the coaſt of Flanders, (when you are paſt Oſtend) untill you come in 5. fathom. Thwart of Blanckenbrough there was wont a few yeares paſt, to lye a bancke or ſhare off from the ſhore, which men might ſaile within, comming from the weſtwards: now there is nothing but a little flat, and Dobbelſand is alſo altogether cleane gone. Or elſe you muſt looke out for Liſwegen a flat ſteeple, and the thickeſt thereabouts. When the ſteeples of Bridges, (being called the Brugghelinghen) ſtand a cables length to the weſtwards of Liſwegen, then are you yet to the weſtwards of all the ſands, polles, and banckes, keepe theſe ſteeples ſo ſtanding and runne on to the coaſt, untill you come over the foreſayd Ript, and that you find againe ſoft ground, and more depth, untill you come in 5. fathom, go then n.e. and n.e. and by e. with a flood, or northeaſt and northeaſt, and by north with an ebbe (reckon well your tydes, which runneth there moſt e.ſe. ſomewhat ſoutherly, and w.n.w. ſomewhat northerly, and the tide runneth but a little houre alongſt the land) keep the ſteeple Wenduynen one or 2. ſhips lengths without the Sconce of Blanckenbrough, ſo long as you can ſee them, and ſtill in 5. fathom; when that Heyſt cometh then to Bridges, and Weſtchappell to Knock, then are you right in the fareway of the Wielinghe, the neater that you are to the bancke of the Engliſh Poll, the deeper water you ſhall finde, except that you have the ſhowlding of the banck it ſelfe. Bridges muſt come firſt to Heyſt, or elſe you ſhould be too far to ſeawards, or too neare to the Engliſh Poll; with a fore flood you may bring them both at once together, but not with a fore-ebbe. If you get then ſhowlding, that is, of the Engliſh Poll, goe from thence alongſt the ſame courſe, through betwixt the Engliſh Poll and the French Poll, or Innerbanck, that is a hard ſand and ſteep, but the Engliſh Poll is thereabouts flat, which you may ſound. When as that the caſtle of Sluce commeth to S. Lambert (a high flat ſteeple upon Caſand, to the northwards or to the eaſtwards of the Sluce) then you are paſt the French Poll, goe then eaſt on right with Fluſhing, or elſe obſerve theſe markes following: Liſwegen muſt not come within Heyſt, before the Caſtle of Sluce come to the e. ſandhill of Caſand, but remain without it, or elſe you ſhould ſaile on againſt the innerbanck, when as that the Caſtle commeth to the ſandhill, goe then boldly northeaſt and by eaſt, and eaſtnortheaſt, for to avoyd the French Poll, untill that the ſteeple of Fluſhing come to the northwards of the priſon gate, then you get deeper water: goe then on eaſt, and eaſt & by ſouth right with Fluſhing. There remaineth in the Wieling, as alſo in the innerwieling at the loweſt water, not leſſe then 4. fathom and a halfe water.

Marks of the French Poll.

The inner-wieling lyeth in through betwixt the inner-bank, or French Poll, and Caſant. When you come from the weſtwards into the Wieling, and are come ſo farr, that Weſtchappell come to Knock, and will go in at the innerwieling, then goe from thence eaſt and by ſ.on and you ſhall eſpy the buy upon the point of the Paerd-marck (that is, a ſand that ſhooteth off from the eaſt point of Sluce haven, and is very ſteep) leave that buy on the ſtarboard ſide, and keepe S. Lamberts ſteeple even without the e. ſandhill of Caſant or Sluce haven, and goe on n.e. or ſomewhat more northerly alongſt by the ſhore, for to avoid the Krakeſand, when as then the Caſtle of Sluce and S. Lamberts ſteeple come one in the other, then goe on eaſt right with Fluſhing.

The inne VVieling

Krakeſand

Flanders is a Land full of ſandhils and hommocks, with many ſteeples alongſt the coaſt, lying from the Haven of Sluce unto Callice, moſt w.ſ.w. and eaſt n.e. The firſt ſteeple to the weſtwards of Sluce is S. Anne a flat ſteeple, and then Weſtchappell a little ſhort flat ſteeple, with a blunt cap upon it. Heyſt to the weſtwards of them is a long ſharpe Steeple higher then Knock. Betwixt Heyſt and Blanckenbrough, lyeth Liſwegen ſomewhat within the land, that is a flat ſteeple, and the thickeſt of all the ſteeples thereabouts. Blanckenbrough is alſo a flat ſteeple higher then Liſwegen, but not ſo thick. Within the Land from Blanckenbrough ſtandeth bridges, two thick ſharp ſteeples upon one Church; to the weſtwards of Blanckenbrough a great halfe league lyeth Wenduynen a ſharp ſteeple.

Of the Tydes and Courſes of the ſtreames.

Before Brewers Haven, a ſ.ſ.w. and n.n.e. Moone maketh high water.

In the Channell of Brewers-Haven a ſouth and by Weſt Moone.

At Ter-Veer a Southſouthweſt and Northnortheaſt Moone.

In the Veer-gate a ſouth and north Moone.

It is not good to runne in at Veer-gat, eſpecially with a ſoutherly or ſouthweſt wind, before that the flood be halfe ſpent, for the after-ebbe, and the fore-flood fall thwart over the Baniart hard in at the Roompot, towards the land of Schowen, but when the flood is halfe ſpent, then it falleth right in at the Veer-gat. When the Moone is Southeaſt, or northweſt, then the water is there already two third parts flowen.

Like as it is here before ſaid of the Maſe and the Goerees gat, ſo alſo here before the channels of Brew. H. & Ter Veer the flood turneth about with the Sunne, ſo that the after-flood falleth in the channels, and then afterwards turneth about to the ſouthwards, and becommeth a running ebbe, but the after-ebbs fall right out at the channels thwart into the ſea, and then with the fore-flood about againe to the northwards.

Before the Wielings a ſouth and by w. and a ſ.ſ.w. Moon maketh the higheſt water.

At Fluſhing and Ramekens a ſ.ſ.w. Moone.

At Weſtchappell on the land of Walcheren, a ſouth and north Moone maketh high water. When the water is a halfe houre falſen, then the tyde beginneth to fall out there, and when it is flowen a halfe houre, it beginneth to fall in: but before the Botkill it beginneth to goe there firſt an houre before the loweſt water, but it falleth long at ſea. In the Splete, and over the Showlds lying thereabouts, the tide turneth about againſt the Sunne, and at laſt, falleth in at the channels. A ſouth and north Moone maketh there the higheſt water. The fore-flood falleth over the ſhowlds there towards the land. When the Moone is about eaſtſoutheaſt, or that the water bee about two houres flowen, then it beginneth to turne towards the ſouth, firſt ſouthſouthweſt, and then paſt the ſouth towards the eaſt, untill that the Moone be ſouthſoutheaſt, and then the flood falleth to the

eaſtwards. When Blanckenbrough ſtandeth about ſouth-eaſt and by eaſt from you, from thence to the eaſtwards the tyde turneth about againſt the Sun, but from thence to the weſtwards, you ſhall not finde the tydes to turne about.

Againſt Zealand in the fare-way a third part of the flood falleth towards the land, and afterwards eaſt and by north. Men may ſee Zealand from the poope in 16. fathom.

Courſes and Diſtances.

From Fluſhing to Blanckenbrough neareſt Weſtſouthweſt, 9. leagues.

From Blanckenbrough to Oſtend ſouthweſt and by weſt, 2. leagues.

From Fluſhing to the north Forland, w. ſomewhat ſoutherly 25. leagues.

From the Wielings to Dover weſtſouthweſt 26. leagues.

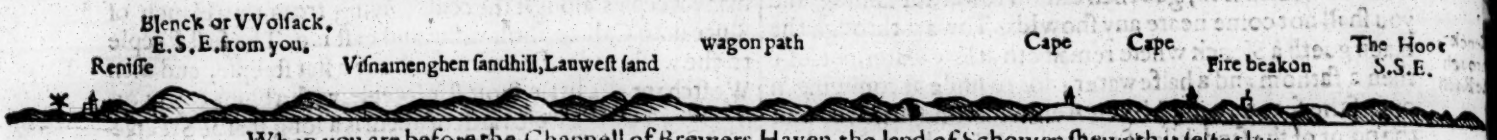
From the Wielings to Lay-ſtaffe or Yarmouth, northweſt and n.w. and by w. 38. or 40. leag.

Heights.

Fluſhing, Ramekens, and the ſouth coaſt of Walcheren lye neare in 51. degrees and a halfe.

How theſe lands doe ſhew themſelves at Sea.

The land of Schowen ſheweth it ſelfe thus when it is three or foure leagues thwart from you.



When you are before the Channell of Brewers Haven, the land of Schowen ſheweth it ſelfe thus.

The ſheweth Walcheren when you are in the Doorloy, or before the Splete.

Thus ſheweth the coaſt of Flanders from Blanckenbrough eaſtwards, when you ſayle in or out at the Wielings.

The third Demonſtration.

Which unfoldeth

The Coaſt of Flanders, from Wendowne to the Heads about Treſport, together with the Coaſt of England, the Promentory of Dover, and from Dover to Fierley.

BEtwixt Wenduynen & Blanckenbrough ſtandeth another litle ſteeple caled Iohn Davids ſteeple. Oſtēd lieth a great leag. to the weſtwards of Wackerbout. A halfe leage to the weſtwards of Oſtend, lyeth *S.* Catharines, and a league to the weſtwards of it is Midlekerck, being a high thick flat ſteeple. From Middlekerck to Newport it is two leagues, there is a flat ſteeple, with a little ſharpe ſteeple. A little to the eaſtwards of Newport lyeth our Lady of Lombardy, a high flat ſteeple.

From Newport to Broers it is two leagues, and from Broers to Dunkercke three leagues. The Southkoten is a league to the eaſtwards of Dunkerck. Dunkerck hath a high flat ſteeple, with a little ſharpe ſteeple. From Dunkerck to Graveling are three leagues, betwixt them ſtand theſe ſteeples, firſt little Sinten a little ſharpe ſteeple, great Sinten a thick flat ſteeple, Maerdyke a thicke flat ſteeple, and *Saint* Georges a high ſharpe ſteeple. Graveling hath no ſteeples, but there ſtand two mills, one on the Eaſter-gate, and the other on the weſt end of the towne. From Graveling to Callice are three leagues. Callice hath many ſharpe Steeples, whereof one is higher then all the reſt, and betwixt both lye theſe villages moſt without ſteeples. Firſt Hooghenpryſe and Daſen, two flat ſteeples; more, Valdam a flat Church with a little ſpire upon the middeſt of it, that is all the knowledge of Flanders. The Coaſt of Flanders betwixt Callice and Blanckenbrough, is foure and twenty leagues long, or as ſome ſay, one and twenty leagues, and Blanckenbrough from Fluſhing nine leagues. So that Fluſhing is from Callice, at the leaſt 30. leagues, or as ſome ſay 33. leagues at the moſt.

That which is here ſaid of the ſteeples and leagues alongſt the coaſt of Flanders, is very ſerviceable and needfull as well for that which is before deſcribed of the Wielings, as alſo for the ſayling into the havens of Flanders, but eſpecially for the knowledge of the Flemiſh bancks.

Oſtend. For to ſayle into Oſtend, you muſt run cloſe to the eaſtwards of the towne into the haven called the Gueule, on the eaſt poynt of the haven lyeth a head, whereupon ſtandeth a beakon, you muſt run cloſe in by that head, there it is deepeſt From the weſt ſide, to wit, towards the towne, ſhooteth off a little flat, whereof you muſt avoyd that ſide a ſhips length or two, at low water and a common tide remaineth in this havens mouth ſix foot, and at high water there is two & twenty foot water. A little within the haven you may ankor where you will, and at low water you may lye there with a great ſhip a float.

Newport. Newport is a tydehaven, which falleth altogether dry at low water and at high water, and a commen tide there is 13 foot water, cloſe before the Havens mouth is a banck, which lyeth from the eaſtwards of the Haven of Newport over to the weſtwards, thwart before the Havens mouth, & at halfe flood lyeth dry, and at high water there commeth no more upon it then eight foot water.

VLAENDEREN

Wendunynen
Ghyssel
Duynmyen
Oostende
Nieupoort
Wynoobergen
Duynkercken
Grevelingen
Broers
Southcote
Klein Sinten
Groot Sinten
St Joris
Fort Macrelyck
De Koyen
Bree Banck
Stein Banck
Smal Banck
Hier is't Diepste water
't Ranneel
De Rattings
Den Dyck
De Polders
Goeymoh
Sandwich
Margat
't Veerlandt
Duynsch mylen
Spaansche mylen
Engel en Fra. mylen

ENG

27

van
Vranckrÿck.
Tresport. en
elandt vandt
e Cingels
breven door
Colom.

GALLIA

PARS

Crotoy
Somme fl.
Oostduyn
Coiou
Hue
Tresport
Aorti fl.
Monstreul
S. Iosse
Canche fl.
Estaples
Boloigne
Beunen
d'Oude man
Tour d'orden
Ambleteul
Calis Kluf
Swartenes
Vrouwe Sant
Romanÿ
Smak
Stavel
Rye
Winkelzee
Ostende
Nieuport
Duynkercken
Calis
Grevelingen
Gravelingen
Sluÿs
Sluys
Brugis
Brugge
Ardenburch
Ardenburg
Oostcapelle
Oostcapelle
Heyst
Heyst
Blanckenberch
Blankenberge
Wenduyne
Wenduyne
Plassendale
Plassendale
Heyst
Heyst
Knocke
Knocke
Zeebrugge
Zeebrugge
Dammen
Damme
Oostende
Oostende
Nieuport
Nieuport
Duynkercken
Duinkerke
Calis
Calais
Grevelingen
Gravelines
Sluÿs
Sluis
Brugis
Brugge
Ardenburch
Aardenburg
Oostcapelle
Oostkapelle
Heyst
Heist
Blanckenberch
Blankenberge
Wenduyne
Wenduine
Plassendale
Plassendale
Heyst
Heist
Knocke
Knokke
Zeebrugge
Zeebrugge
Dammen
Damme

arines de
pas de Calai-

ANDT

d'Allemat ÿ en un deg
d'Eſpas ÿ en un degr
Angl ce Fra ÿ en un de

For to say into New port.

qnade banck.

Small banck.

For to say into Dun-kerck

The Splin ter.

Graveling

Callice.

For to sayl into Newport.

He that will goe into Newport, must go in from the westwards betwixt the foresaid banck and the land, and saile unto the southwards of the bank so long untill that the innermost beakon come even through, or to the eastwards of the outermost, and then run in so right by them, & in alongst amidst the channell betwixt the heads. Betwixt the banck and the land it is on both sides flat rising ground, so that you may sound the shoares on both sides, but on the north side the banck is somewhat steep, it is 3. fathom deep close alongst by it. Within the havens mouth it is set on both sides of the deep with beakons, where you must run through betwixt, untill you come before the Towne, which lyeth about a Cannon shot from the sea side. There is fire in the night upon the 2. great beakons, but not longer then from halfe flood to halfe ebbe.

From Newport to Dunkercke alongst by the shoare through within the banckes, it is cleane without any foule ground or bancks, and at low water fifteene foot deepe, the neerer the shoare the deeper. Thwart of the Cloyster ten Duynen betwixt it and Broers banck, it is narrowest, which lyeth not farre from the shoare, thwart of it you must goe close alongst by the shoare.

Quade banck.

The Quade bancke runneth off to the eastwards of the head of Dunkercke, at least two leagues to the westwards ending thwart of the heads of Dunkercke. To the Eastwards of the easter head of Dunkerck men may anckor behind this banck, and lye sheltred for a northwest, north, and northeast winde, it is two fathom deepe there at low water, but in the comming in, it is showlder. Before the Havensmouth of Dunkerck, it is nine and ten fathom deepe, and to the westwards of the wester-head of Dunkerck, six, seven, and eight fathom, from thence men may runne over the smal banck in three fathom, and come against the broad bancke. This Small bancke lyeth right thwart before the Haven of Dunkerck, to wit, betwixt Dunkercke and the Broad banck.

Small banck.

For to say into Dunkerck

For to saile into Dunkerck you must bring the fires within a capstone barrs length one to the other, to wit, the innermost so much to the eastwards of the outermost, keep them so, and run in then close alongst by the easter-head, the wester-head lyeth somewhat further off into the sea then the other, thwart of it lyeth a sandplate with some pales, therefore you must avoyd it, and ruune in close alongst by the easterhead. It is a narrow haven, and at high water and a comon tyde there commeth no more then 12. foot water. In the night they doe fire there as at Newport, from halfe flood to halfe ebbe, and the lowest fire-beakon standeth next unto the sea.

From the wester head of Dunkerck runneth off a bancke about 2. leagues long, called the Splinter, which falleth dry at low water at many places, men may sayle in by the shoare, behind this banck from the westwards almost to the westerhead of Dunkerck, and there may come to an anckor in 5, 6, seven, and eight fathom. About halfe a league from the foresaid westerhead, there runneth a Slenck through the foresaid Bancke, where little Shippes may goe through at high water.

The Splinter.

Graveling

Graveling is also a tyde-haven, where men must goe in at high water, there stand two beakons, which you must keepe one by the other, and sayle so in betwixt the heads, on the west side runneth off a little riffe, which you must avoyd. When you come from the eastwards alongst the coast running through Wolbreck Sound, at the end of the Brakes, (that are the banckes before Dunkerck, and from thence westwards) then you come against the west poynt of the foresayd little riffe or out-land of Graveling, which lyeth a good wayes off into the sea, to the eastwards of it men run into the Haven of Graveling by night right in with the fires.

To the westwards of the Haven of Graveling lyeth a bancke or flat alongst the shore, lying a good wayes off from the land to sea-wards, almost as farre to the westwards as Callice, called the New-Land, men may runne alongst by it, or over it in five, foure, and three fathom, according as men will.

Callice.

The haven of Callice falleth every tide altogether dry, and at high water with a common-tyde, there is no lesse then 3. fathom water. For to sayle in there you must keepe the mill (standing on the east corner of the towne) right over the easter head, and run in so close alongst by the easterhead, and let the castle lye on the west side of you, from the wester head runneth off a little riffe, therefore you must avoyd it. When you are come in within the westerhead, you must goe up to the westwards into Paradice, and there lye dry at low water. By night when the tide serveth, there stand two fires, you must run in right with them. It is not good to come into this haven before high water, because of the exceeding strong tide that runneth in there with the flood, for to avoid the ankors of the ships, which lye there within. It is there within dangerous and bad lying, especially with a northerly winde, which bloweth there open in.

Thwart off from the wester head of Callice lyeth a banck of two fathom, betwixt the head or Meyland, and the same bancke men may runne through in three fathom at halfe flood, the bancke is two fathom deepe. Under Callice cliffe at the east end, men may anckor in tenne fathom, but at the west end lyeth a rocke under water, a bow shoot from the land. Callice cliffe lyeth betwixt Callice and Blankenesse.

Callice cliffe.

Of the Flemish Bancks.

West from Westcappell, and northwest from Ostend, about nine leagues without the Coast of Flanders, lyeth a little plate, whereupon at low water is no more then two & twenty foot water, in foule weather the sea breaketh very much upon it.

About two leagues from Ostend without the land lyeth the Trick, or outerbanck, upon it there is no more then fifteen or sixteen foot water. When S. Catherines steeple commeth against Ostend, then you come on against this banck: betwixt this banck and the heads of Ostend, lyeth another banck of three fathom water.

The Trick

Betwixt Ostend and Newport lye foure bancks, all which foure begin about thwart of Ostend, the two neerest to the lands end thwart of Newport. The other lye all alongst the land almost to Dunkercke: the first and neerest to the land is called the Geere, betwixt that and the land goeth a channell through, of eight, nine, and ten fathom.

The Geer.

The second called Laland, endeth also against Newport, betwixt these two goeth a channel through of eight and nine fathom.

Laland

The third are two banks one to the other, the eastermost ending halfe wayes: Laland is called Stroom, the westermost ending thwart of Dunkerck, is called the Stonebank, which hath on the east side a hooke, which lyeth to the eastwards, running to nothing almost against Newport: this banck is three or foure fathom, and upon the east end five & six fathom.

Stroom Stone banck

The fourth is also in two bancks, the eastermost is called Sandele, or Oudemoers banck, and the westermost Calbanck, of some called also Small banck, which lyeth alongst by the Broad-Banck: but that outer end lyeth at least two great leagues off.

Sandele Calbanck. oudmoers banck.

The shippes that will goe before Dunkerck and cannot get alongst by Flanders, doe runne about without these banckes, untill they come against Broad-Bancke, and then runne in alongst by it in five or six fathom. The Channell is fifteen fathom deep, and every one of these foure banckes hath a dry Poelder. When two Steeples (that are somewhat flat to the southwards of Newport) stand a handpikes length asunder, then are you thwart of these foure banckes here before mentioned, which are dot deeper at low water then one fathom, and at spring tides fall almost dry.

Betwixt al these banckes you may anckor in nine, ten eleven, & also in twelve fathom, you may runne over them, in foure fathom, but when you are to the westwards of them you shall find it deeper, to wit, eight, nine, and ten fathom.

Broers banck

The Broers banck is three cornerd, and lyeth close by the land thwart of Broers and the Cloyster Ten Duynen, and lyeth off from the shoare about westnorthwest a league into the sea, when the Cloyster Ten Duynen, or the Broers lyeth south from you, then you are at the innermost

part of the Broers banck, you may runne through betwixt the land and this banck, in foure fathom at low water; but men doe run commonly about to the westwards of it, when they sayle through within the banckes, alongst the Coast of Flanders.

Cams Banck. A little to the westwards of Broers banck lyeth the Cams bancke, which is three fathom deepe, and lyeth in many Rasses, you may runne through betwixt the land and this bancke also in 8, 9, and 10. fathom, and also may ride there for all winds. By the land, betwixt this bank and Broers bank, it is 5. fathom deepe. When you run through betwixt this bancke and the land, then you come alongst by the Quade bank untill you come before the haven of Dunkerck. When

Wilbaert sound you are a good wayes past the head of Dunkerck, about s.w. from the Splinter, then you runne over a showld of two fathom, called Wilbaert Sound, being over it you shall have againe ten, eleven, and twelve fathom. When Borburger Steeple commeth in the valley of the sandhill, then you are are thwart of this bancke, by these markes you may sayle through these bancks northnorthwest into the sea, and come against the tayle of the Broad-banck in foure fathom. When as that you doe edge againe somewhat towards the land in twelve, thirteene, or fifteene fathom; then you may sayle through betwixt the Broad and the Small bancke, on eastnortheast, or east and by north untill you be past the Cloyster Ten Duynen, or the Broers Banck, which lyeth off from the Cloyster about a league into the sea. To the eastwards past this banck it beginneth to be showld water against Newport foure or five fathom, being past Newport, you must edge towards the land, in eight or nine fathom, keeping close to the land, and then you shal run through betwixt the land and the Geere, (which lyeth alongst towards Ostend.) When you come against Ostend, then you are cleare of the bancks, and then you may run into the sea for to go into the Wielings.

Markes of the Flemish bancks. There lye yet five long banckes alongst Flanders. When Graveling is southeast from you, then you are thwart of the south end of these banckes: and when Newport is Southeast from you, then you are thwart of the north end of them they are very long, and betwixt each goeth a wide Channell through, of eight, nine, twelve, fifteene, sixteen, eighteene, nineteene, and twenty fathom deepe, each of a several depth.

The cliffe. The outermost or westermost bancke called the Cliffe lyeth from Callice Cliffe northnortheast about foure leagu. and a halfe, and is three fathom and a halfe deep: betwixt this and the other goeth a wide channell through of three and twenty and 24. fathom deep.

The Ruyting. The second called the Ruyting, lyeth from Callice cliffe northeast and by north about foure leagues, and is there five or six fathom deepe, but upon the south end of it, is a Poelder of a fathom and a halfe. When the south end of Winocxbergen commeth betwixt the two flat Steeples to the westwards of Dunkerck, then are you thwart of this Poelder.

There stand three or foure mils to the eastwards of Dunkerck, when the outermost commeth over the east end of the towne, that is also a good mark of this Poelder, or showld and then the steeple of Dunkerck shall be from you s.e. five leagues.

Betwixt this and the third goeth also a channell through of 12. and 13. fathom.

The Dyke The third, called the Dyke, lyeth from Callice Cliffe northeast, and is deepe foure and five fathom, upon the fourth and north end of this Bancke are Poelders, the southermost is deepe one fathom, and lyeth also upon the markes of Winocxbergen about northwest somewhat westerly from Dunkerck, and is called the Polder of the Dyke, or Dyke-Polder, the other Polder or showld of this bancke is about foure fathom and two foot deepe, and lyeth northwest from the Cloyster Ten Duynen. These bancks are very dangerous; for the Ruyting lyeth almost in the fare-way, and at low water they have no more then two fathom depth.

Kettel-banck. The fourth banck, called Kettell-banck, lyeth from Callice-Cliffe northeast and by east, and is deepe, three, foure, five and six fathom. Upon the south end is a showld of one fathom water at low water, at spring-tydes these Polders fall dry. Alongst by this goeth also a channell through of 19, and 20. fathom.

To the eastwards of the Kettel-banck, to wit, betwixt that and the Broad-banck goeth through a great channell of nineteene and twenty fathom.

In all the channels betwixt the foresaid banckes, men may turne to windwards every where from one bancke to the other, and anckor betwixt the bancks where they will.

Broad banck The south end of the Broad-bancke lyeth from Callice cliffe eastnortheast, and hath one showld upon the south end of one fathom and a halfe, is throughout three and 4 fathom deepe.

The north end is deep 6, 7, and 8. fathom, and lyeth so far to the northwards, untill Newport be northwest from you, or the Cloyster Ten Duynen bee northnorthwest 5, or 6. leagues from you.

The coast of England from Dover to the north Forland.

Betwixt Callice and Dover amiddest in the fare-way, (or somewhat nearer the French side then the English) lyeth a narrow bancke of foure leagues long, lying about n. n. east and southsouthwest alongst the land of Blackenesse, being called the Vaen, and by the Dutchmen called Vrow-sand, of 5, 6, 7, and 8. fathom depth, and runneth to the southwards towards the land of Bulleyn. West and by south from Callice-cliffe, and south and south and by east from Dover, is the showldest of it, at low water not deeper then sixteene or seventeene foot. On both sides of this banck, as well alongst to the eastwards as to the westwards of it, it is 20, 22, 23, and 24. fathom deepe. Men may anckor before Dover for a north and northwest wind, right against the Castle, in tenne fathom, is the best road, and cleane ground. For to saile into the Downes from the southwards, you must run about by the south Forland, within two cables length alongst by the land, and anckor thwart of the middlemost Castle in 7, or 8. fathom.

The southermost poynt of Goodding, and the south Forland lye northeast and southwest asunder.

Goodding Betwixt Goodding and the Valley in the land of the north Forland, called Ramsgat, lye 2. showlds, whereof the westermost is called the Quernes, and the eastermost the Brakes.

For to saile from Dover (through within the Goodding, betwixt the Goodding and the Brakes) to the north Forland, you must goe on north and by east so long untill that the mill upon the north Forland come to the west side of the Valley in the north Forland, then goe yet north and by east, and northnortheast, untill that the little steeple upon the North Forland come to the East side of the foresayd valley, then you shall be to the northwards of the Brakes, and then the little flat steeple upon south Forland commeth to, or right over the third white Chalckhill to the Northwards of the south Forland, that is a direct long marke, for to saile through betwixt the Brakes and Goodding, as well when you come from the Northwards as from the Southwards.

Brakes. For to sayle through within the Goodding from the Northwards, you must not come nearer the Brakes then in seven fathom, and set the south Forland southsouthwest from you, and sayle then so right with it, and then you shall runne alongst the best deepe. When that the flat steeple upon the North Forland standeth in Ramsgat or the Valley, then you shall be thwart of the Brakes, and when the mill commeth in Ramsgat, you shall be to the southwards of the Brakes.

When you lye in the Downes, and that the inner point of the cliffe of the south Forland lye southsouthwest from you, then the Quernes lye north and by east from you, and quernes the north end of Goodding northeast from you.

The north end of Goodding, and the point of the north Forland, lye southeast and by east and northwest and by w. a league and a halfe asunder.

For

For to saile through betwixt the Brakes and the quernes.

For to come from the northwards into the Downes through betwixt the Brakes and the Quernes: there standeth a Church upon the high land of the south Forland, to the northwards of it, which is a flat steeple, and the Church somewhat great of body, and there are three Castles upon the strand of the Downes, you must bring the foresayd Church with the flat steeple right in the middest betwixt the two southermost castles, and then you are in the fareway in the middle of the channell, and that will serue for a leading mark to run through betwixt the Brakes and the Quernes, and the course lyeth through southsouthwest. If the winde bee southerly, that you must turne to windwards through, runne not further over to the eastwards then that the foresayd Church come within two ships lenghts of the southermost castle, for if you should bring them neerer, or together, then you should run upon the Brake, and being cast about, run not further over to the westwards then that the foresayd Church come within two shippes lenghts of the tree, for if you should bring them neerer, or together, you should run upon the Quernes, and these markes will serue to turne to windwards through betwixt the Brakes and Quernes either from the northwards or the southwards. The Brake is steep, being 5 fathom close alongst by the side of it, and in the middle of the channell but 15 foot at low water, so that it is deeper by the side of the Brake, then in the middle of the channell. As you turn to windwards, and run over the eastwards towards the Brake, as soon as you must cast about, or els you should be against the Brake: the Querne is flat, but nevertheless as soone as you finde it showlder (in running over to the westwards the Querne) then 15 foot, you must cast about again, and so turn through. About halfe a league from the north end of the Goodding to the southwatds, lyeth off a flat tayle or spit of sand to the westwards froom the Goodding, a great mvsket shot of, & falleth drye a good wayes off at low water, which maketh the channell there betwixt the Goodding and the Brake very narrow, the thwart marks of this taile of sand are these: up within the land, a little to the southwards of Ramsgate, stand three or foure high trees together, when these trees doe come right over the southermost end of the cliffe that lyeth also a little to the southwards of Ramsgat, then you are thwart of this foresayd tayle of sand, as soon as you shall be past it, then you shall haue more roome to turne to windwards, and may run further over the Goodding.

Thwart markes of a taile of sand, lying of frō the Goodding

For to run about al seaboard of the Goodding.

For to sayle from Dover without the Goodding to the north Forland, you must keepe the poynt to the westwards of Dover without the south Forland, and goe on northeast untill that the north Foreland northwest and by west from you, then you may boldly run to the north Forland, and anckor before Margate, or where that you shall think it best, but thwart of the steeple, where the mill standeth by, is the best road. Or when the point of the north Forland lyeth southsouthwest and southwest and by south from you, there is also good riding in eight or nine fathom Betwixt Targate and the Reculvers, men may anckor every where in six or seven fathom at halfe flood.

Betwixt the Quernes and north Forland men may also run through to Sandwich, there runs off a little stone-bank from the shore, called the Fourefoot, betwixt that and the Quernes it is at halfe flood two fathom deepe. The Quernes are lately growne much lesse, and shifted, so that the north end of them is almost gone.

Blackneſſe

About a great league to the westwards of Callice cliffe lyeth Blackenesse, a foule out-point, thwart of it lye many rocks alongst the shore. From Blackenesse to the river of Bullen, lyeth the coast south and by east three leagues a league to the southwards of the Nesse, the land falleth somewhat in with a faire sandy Baye. In this Baye lyeth a Fisher village on the coast, thwart of it in the sandy Baye is a very good road for easterly windes, in 5, 6, 10, 15 and 16 fathom, according as you will lye farre from the shore. For to anckor there, you must bring the steeple of the village over the middest of the houses. This place is called S. Johns road. A little to the northwards of that foresaid Fisher village, stands a mil with some houses, from thence to the northwards you may not anckor, for there the ground is fowle and stony. To the southwards of the Road towards the River of Bullen, lye also some little rockes alongst the coast, which you must not come very neere to.

S. Iohns Roade.

Upon the north poynt of the River of Bullen standeth a high thick Tower called a Tour d'Ordre, by sea men the Old-man, a speciall mark for to know the River by. About an English mile to the northwards of this Tower, a little mile from the shore, lyeth a litle suncken rock under water, where a Huye or Smack may not go over.

Tour d'Ordre. Oldman. Suncken rock.

Vpon the south poynt of the River of Bullen standeth a stone wall, and upon it a great beacon of a mast, thwart of it from the south point lyeth of a little riffe or showld, that you must shun, and run close aboard alongst by the Head, which lyeth at the north poynt, and hath been there lately made. When you are come within this Head, you must presently let fall your anckor and ride there; It is a tyde haven, there men must goe in at high water, and at low water lye dry upon the chindle. Without, before the River, lyeth a banck, men were wont from the southwards to run in over it in two fathom, and from the northwards in three fathom but it is now to the southwards deeper through the scouring of the water alongst the foresaid Head, which is a made at the north poynt.

Bullen.

The Somme.

From the Oldman, or the River of Bullen to Somme is the course south about eleven leagues, between them lye also two other rivers, Cauche & Auty, upon the first lye Eastaples and Monstreu, there you must goe in amid channell at the highest water, within. it falleth altogether drye at low water.

For to sail into the Somme.

Men may sayle into the Somme, through two channels, from the east poynt called the East Downe, lyeth off a sand thwart before the channell; to the westwards of that riffe lyeth also an other great banck, between them goeth in the Easter channell. For to sayle in there, bring S. Valery a cables length to the westwards of the west point of the river, called the Oordell, and run in there upon, untill you come to the land at that foresayd west poynt; and from thence close alongst by it, or as soon as you get againe deeper water over the banck, then up eastward towards the Beacons. From the point of the Oordel lyeth off to the northwards a little riffe, upon the end of it lyeth a buye which you must leaue on the starbord side, & run in close about to the northwards of it. From the point of the Oordel upwards, it is set all alongst with beacons, you must run alongst close by them, untill you come within the point of S. Valery, where you must anckor, & lye every tyde dry. The sands therewithin do shift so often, that they are not to be described for alwayes.

For to sail into the wester channell.

For to sayle into the wester channell, comming from the east or the north. you must run alongst by the bankes in six or seven fathom, and not neerer, they are so steepe, that a ship sitting fast against them with the fore-ship, at the stern hath three fathom. Cōming towards the land at the end of the bankes, you shall finde a buye, Or els if you come from the west & bring Crotoye a cables length within the Oordell, and saile so right in, you shall finde the foresayd outermost buye. Besides this, there lye three other buyes, whereof that foresayd buye on the poynt of the Oordell is the fourth, and the innermost: you must leaue them all on the starbord side towards the land, & run in alongst by them to the northwards of them.

These channels and sands there within (all untill past S. Valery) fall at low water altogether drye, the buyes also fall drye, that men may goe by them; at halfe flood with an ordinary tyde, there is no more then two fathom water, it is not good to goe in there before that two third parts of the flood bee spent, With an ordinary tyde it floweth there fiue and six fathom, but with a spring tyde seven fathom up and downe. At high water and spring tyde, a man may goe over all the bankes and sands with eight or ten foot water: fiue leagues upwards lyeth Abbe ville.

Thwart of the Somme, it is farre off into the sea showld water, five, six, seven, eight, nine and ten fathom, three or four leagues off into sea: he that cōmeth from the west, and findeth himselfe in darke and misty weather to bee in such showlding, may be well assured not to be farre from the Somme.

Of

Of the tydes & courses of the streames.

Alongst the coast of Flanders on the Land, a south and north most one maketh full sea.

In the fareway without the Flemish bankes in the sea, a southwest moone maketh high water.

In the middest betwixt the heads, a southwest Moone.

At Dover, a South and north moone.

In the Downes, a Southsouthwest moone.

At the north Forland. a South and north moone.

Alongst the Flemish banckes, the fore-flood falleth over the bancks, towards the Land, about the third part of the tyde, afterwards alongst the Land, but the after-flood falleth to the northwards alongst the sea in the right fareway.

When the flood beginneth to go there thwart off at sea, then it is already halfe flood on the land, & the water flowen halfe wayes, so that men may goe into all the Havens on the Flemish coast with five or six foot water.

In the middest through the Heades, the flood falleth northeast and by east. and the Ebbe Southwest and by west.

From Dover to the north Forland, the tyde falleth through within the Goodding north and South over the Brakes and Quernes.

Before Callice and Blackneſſe, the flood falleth first one quarter to the land, afterwards northnortheast.

Betwixt Blackneſſe and Bulleyn. the flood falleth north and by east by the land, but a seaboard in the offing northnortheast. A. ſ. ſ. e. moone maketh there the highest water.

Betwixt Bulleyn, Diep, and before the Somme, the flood falleth first one quarter to the land; afterwards northeast & by east. and ebbe Southwest & by west.

Of the Depths.

In the right fare-way betwixt the Marſdeep & the Heads it is 23 and 24 fathom deepe. A little without the Flemish bankes 18, 19. & 20 fathom, but neere Goodding, or about the north Forland, it is 26, 28, and also 30 fathom deep, the neerer Goodding the deeper water.

Being thwart of Goodding in 28 or 29 fathom, you shall not be 2 shots of a cast-peece from it.

For to sail out of the Mardeep towards the Head, go not on otherwise then Southwest, & southwest. & by south, (but you must be very carefull to take heed of the tydes) when you shall reckon to have sailed 40. or 46 leagues, then edge over to the Flemish bankes, untill you come in twenty or 18 fathom, when that you are sure of these grounds, then go on southwest, & at length southwest, & by west, and you shal come in the midst betwixt the heads of Callice & Dover.

Flanders you may see from the Poope in 16 fathom, and then you are within the poynt of the Flemish banckes.

Callice cliffe & the south Forland, or the poynt of Dover, you may see when you are before them in 24. Fathom.

To the southwards of the Oldman, or Tour d' Ordre, lyeth the high land of Eastaples, which is very good to be known, because thereabouts is no land so high. When that is northnortheast from you, & you be thwart of the Somme me, it is there deepe 8 and 9 fathom.

Upon the land of Somme towards Diep, stand many sharp towers, and some milles & trees, and hath all alongst the coast a sandy strand.

Courses and Distances.

From Blanckenbrough to Ostend s.w, & by west	2. leagues.
From Ostend to Newport w.s.w	3 leagues.
From Newport to Dunkerck w.s.w.	5 leagues.
From Dunkerck to Graveling w.s.w.	4 leagues.
From Graveling to Callice w.s.w.	4 leagues.
From Callice to Callice-Cliffe s.w. & by west	1 league.
From the Heads of Callice and Dover to the Riffe of Iutland northnortheast	120 leagues.
From Callice-cliffe to the Naze in Norway, northeast and by north	153 leagues.
From Callice-cliffe to Blackneſſe southw.	one great league.
From Blackneſſe to the Oldman, South	2 leagues.
From Blackneſſe to Somme South	9 leagues.
From the Somme to Tresport S.S.W.	7 leagues.

Heights.

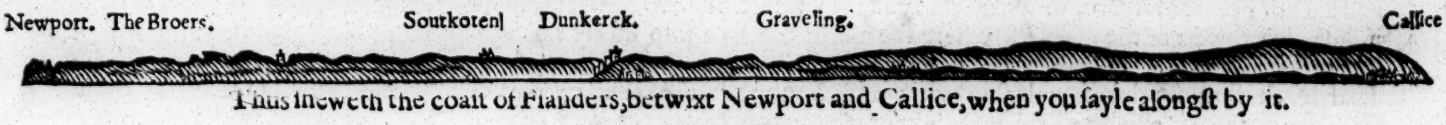
The Heads and Dover lye in	51 degr, 12, min.
The Somme lyeth in	52 degr. 18 min.

How these Lands doe shew themselves at sea.

Thus sheweth the coast of Flanders betwixt Ostend and Newport.

Thus sheweth Dover when you saile to the westwards of the Vaen, or Vrow-land, through the Heads.

When you run from te Downes towards the north Forland, then the and sheweth it self thus.



Thus sheweth the coast of Flanders, betwixt Newport and Callice, when you sayle alongst by it.

From Callice-Cliffe unto beyond Bulleyn, the land sheweth it selfe thus, when you saile alongst by it.

Thus sheweth the land betwixt Eastaples and the Somme, when the high land is northnortheast from you.

Thus sheweth the land to the southwards of the Somme, towards Diep.

Thus sheweth Fairlee when you come from the West.

Thus sheweth Fairlee, when you sayle alongst by it 4 leagues from the land.

The

The second Part.

THE SECOND BOOKE

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

Is contained the Deſcription of the Sea-coaſtes of the Channell between England and France; and likevviſe the Sea-coaſt of Ireland.

With Privilege of the high and Mighty Lords, the States Generall, for tvvelve yeares.

Printed at Amſterdam,

By Iacob Columne, on the Water, in the Fierie Columne, Anno M. DC. XL.

Of the tydes & courses of the streames.

Alongst the coast of Flanders on the Land, a south and north most one maketh full sea.

In the fareway without the Flemish bankes in the sea, a southwest moone maketh high water.

In the middest betwixt the heads, a southwest Moone.

At Dover, a South and north moone.

In the Downes, a Southsouthwest moone.

At the north Forland. a South and north moone.

Alongst the Flemish banckes, the fore-flood falleth over the bancks, towards the Land, about the third part of the tyde, afterwards alongst the Land, but the after-flood falleth to the northwards alongst the sea in the right fareway.

When the flood beginneth to go there thwart off at sea, then it is already halfe flood on the land, & the water flowen halfe wayes, so that men may goe into all the Havens on the Flemish coast with five or six foot water.

In the middest through the Heades, the flood falleth northeast and by east. and the Ebbe Southwest and by west.

From Dover to the north Forland, the tyde falleth through within the Goodding north and South over the Brakes and Quernes.

Before Callice and Blackneſſe, the flood falleth first one quarter to the land, afterwards northnortheast.

Betwixt Blackneſſe and Bulleyn. the flood falleth north and by east by the land, but a seaboard in the offing northnortheast. A. f. s. e. moone maketh there the highest water.

Betwixt Bulleyn, Diep, and before the Somme, the flood falleth first one quarter to the land; afterwards northeast & by east. and ebbe Southwest & by west.

Of the Depths.

In the right fare-way betwixt the Marsdeep & the Heads it is 23 and 24 fathom deepe. A little without the Flemish bankes 18, 19. & 20 fathom, but neere Goodding, or about the north Forland, it is 26, 28, and also 30 fathom deep, the neerer Goodding the deeper water.

Being thwart of Goodding in 28 or 29 fathom, you shall not be 2 shots of a cast-peece from it.

For to sail out of the Mardeep towards the Head, go not on otherwise then Southwest, & southwest. & by south, (but you must be very carefull to take heed of the tydes) when you shall reckon to have sailed 40. or 46 leagues, then edge over to the Flemish bankes, untill you come in twenty or 18 fathom, when that you are sure of these grounds, then go on southwest, & at length southwest, & by west, and you shal come in the midst betwixt the heads of Callice & Dover.

Flanders you may see from the Poope in 16 fathom, and then you are within the poynt of the Flemish banckes.

Callice cliffe & the south Forland, or the poynt of Dover, you may see when you are before them in 24. Fathom.

To the southwards of the Oldman, or Tour d' Ordre, lyeth the high land of Eastaples, which is very good to be known, because thereabouts is no land so high. When that is northnortheast from you, & you be thwart of the Somme me, it is there deepe 8 and 9 fathom.

Upon the land of Somme towards Diep, stand many sharp towers, and some milles & trees, and hath all alongst the coast a sandy strand.

Courses and Distances.

From Blanckenbrough to Ostend s.w, & by west 2. leagues.
From Ostend to Newport
From Newport to Dunker
From Dunkerck to Gravel
From Graveling to Callice
From Callice to Callice-Cl
From the Heads of Callic
land northnortheast
From Callice-cliffe to the
by north
From Callice-cliffe to Bla
From Blackneſſe to the Ol
From Blackneſſe to Somm
From the Somme to Tref
The Heads and Dover lye
The Somme lyeth in

How these Lands doe shew themselves at sea.

Thus sheweth the coast of Flanders betwixt Ostend and New

Thus sheweth Dover when you saile to the westwards of the Vaen, or Vrow-land, through the Heads.

When y
Forl

Thus sheweth the coast of Flanders, betwixt Newport and Callice, when you sayle alongst by it.

From Callice-Cliffe unto beyond Bulleyn, the land sheweth it selfe thus, when you saile alongst by it.

Thus sheweth the land betwixt Eastaples and the Somme, when the high land is northnortheast from you.

Thus sheweth the land to the southwards of the Somme, towards Diep.

Thus sheweth Fairlee when you come from the West.

Thus sheweth Fairlee, when you sayle alongst by it 4 leagues from the land.

The lecond Part,

THE SECOND BOOKE

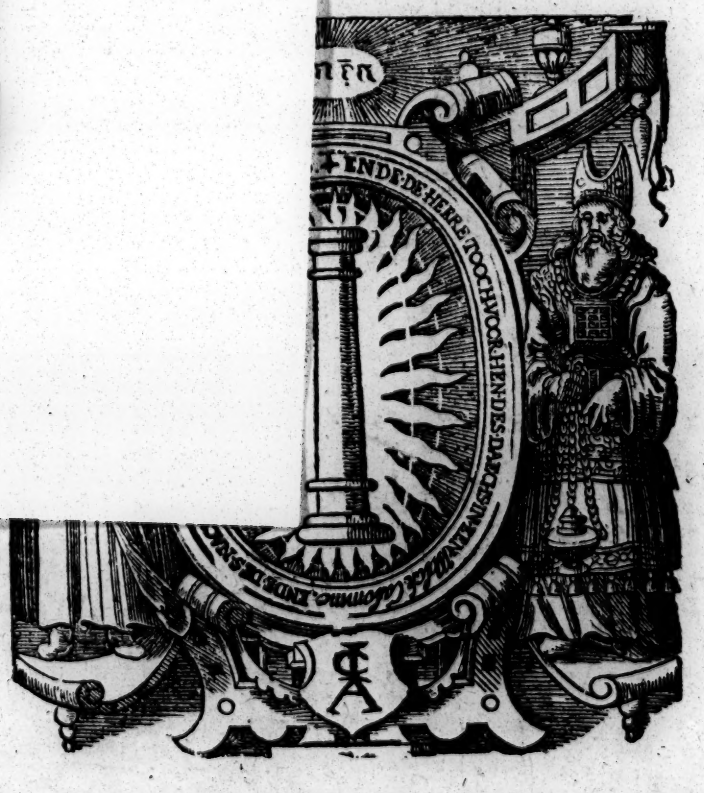
OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

Is contained the Deſcription of the Sea-coaſtes of the Channell between England and France; and likevviſe the Sea-coaſt of Ireland.

high and Mighty Lords,
ll, for tvvelve yeares.



Printed at Amſterdam,

By Iacob Columne, on the Water, in the Fierie Columne, Anno M. DC. XL.

Of the tydes & courſes of the ſtreames.

Alongſt the coaſt of Flanders on the Land, a ſouth and north moſt one maketh full ſea.

In the fareway without the Flemiſh bankes in the ſea, a ſouthweſt moone maketh high water.

In the middeſt betwixt the heads, a ſouthweſt Moone.

At Dover, a South and north moone.

In the Downes, a Southſouthweſt moone.

At the north Forland. a South and north moone.

Alongſt the Flemiſh banckes, the fore-flood falleth over the bancks, towards the Land, about the third part of the tyde, afterwards alongſt the Land, but the after-flood falleth to the northwards alongſt the ſea in the right fareway.

When the flood beginneth to go there thwart off at ſea, then it is already halfe flood on the land, & the water flowen halfe wayes, ſo that men may goe into all the Havens on the Flemiſh coaſt with five or ſix foot water.

In the middeſt through the Heades, the flood falleth northeaſt and by eaſt. and the Ebbe Southweſt and by weſt.

From Dover to the north Forland, the tyde falleth through within the Goodding north and South over the Brakes and Quernes.

Before Callice and Blackneſſe, the flood falleth firſt one quarter to the land, afterwards northnortheaſt.

Betwixt Blackneſſe and Bulleyn. the flood falleth north and by eaſt by the land, but a ſeaboard in the offing northnortheaſt. A. f. f. e. moone maketh there the higheſt water.

Betwixt Bulleyn, Diep, and before the Somme, the flood falleth firſt one quarter to the land; afterwards northeaſt & by eaſt. and ebbe Southweſt & by weſt.

Of the Depths.

In the right fare-way betwixt the Marſdeep & the Heads it is 23 and 24 fathom deepe. A little without the Flemiſh bankes 18, 19. & 20 fathom, but neere Goodding, or about the north Forland, it is 26, 28, and alſo 30 fathom deep, the neerer Goodding the deeper water.

Being thwart of Goodding in 28 or 29 fathom, you ſhall not be 2 ſhots of a caſt-peece from it.

For to ſail out of the Mardeep towards the Head, go not on otherwiſe then Southweſt, & ſouthweſt. & by ſouth, (but you muſt be very carefull to take heed of the tydes) when you ſhall reckon to have ſailed 40. or 46 leagues, then edge over to the Flemiſh bankes, untill you come in twenty or 18 fathom, when that you are ſure of theſe grounds, then go on ſouthweſt, & at length ſouthweſt, & by weſt, and you ſhal come in the midſt betwixt the heads of Callice & Dover.

Flanders you may ſee from the Poope in 16 fathom, and then you are within the poynt of the Flemiſh banckes.

Callice cliffe & the ſouth Forland, or the poynt of Dover, you may ſee when you are before them in 24. Fathom.

To the ſouthwards of the Oldman, or Tour d' Ordre, lyeth the high land of Eaſtaples, which is very good to be known, becauſe thereabouts is no land ſo high. When that is northnortheaſt from you, & you be thwart of the Somme me, it is there deepe 8 and 9 fathom.

Upon the land of Somme towards Diep, ſtand many ſharp towers, and ſome milles & trees, and hath all alongſt the coaſt a ſandy ſtrand.

Courſes and Diſtances.

From Blanckenbrough to Oſtend ſ.w, & by weſt	2. leagues.
From Oſtend to Newport w.ſ.w	3 leagues.
From Newport to Dunkerck w.ſ.w.	5 leagues.
From Dunkerck to Graveling w.ſ.w.	4 leagues.
From Graveling to Callice w.ſ.w.	4 leagues.
From Callice to Callice-Cliffe ſ.w. & by weſt	1 league.
From the Heads of Callice and Dover to the Riffe of Iutland northnortheaſt	120 leagues.
From Callice-cliffe to the Naze in Norway, northeaſt and by north	153 leagues.
From Callice-cliffe to Blackneſſe ſouthw.	one great league.
From Blackneſſe to the Oldman, South	2 leagues.
From Blackneſſe to Somme South	9 leagues.
From the Somme to Treſport S.S.W.	7 leagues.

Heights.

The Heads and Dover lye in	51 degr. 12. min.
The Somme lyeth in	52 degr. 18 min.

How theſe Lands doe ſhew themſelves at ſea.

Thus ſheweth the coaſt of Flanders betwixt Oſtend and Newport.

Thus ſheweth Dover when you ſaile to the weſtwards of the Vaen, or Vrow-land, through the Heads.

When you run from te Downes towards the north Forland, then the and ſheweth it ſelf thus.

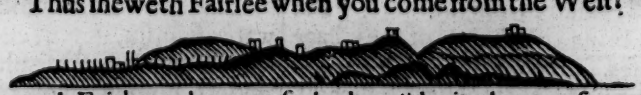
Thus ſheweth the coaſt of Flanders, betwixt Newport and Callice, when you ſayle alongſt by it.

From Callice-Cliffe unto beyond Bulleyn, the land ſheweth it ſelfe thus, when you ſaile alongſt by it.

Thus ſheweth the land betwixt Eaſtaples and the Somme, when the high land is northnortheaſt from you.

Thus ſheweth the land to the ſouthwards of the Somme, towards Diep.

Thus ſheweth Fairlee when you come from the Weſt.



Thus ſheweth Fairlee, when you ſayle alongſt by it 4 leagues from the land.

The second Part.

THE SECOND BOOKE

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

Is contained the Deſcription of the Sea-coaſtes of the Channell between England and France; and likevviſe the Sea-coaſt of Ireland.

With Privilege of the high and Mighty Lords, the States Generall, for tvvelve yeares.

Printed at Amſterdam,

By Iacob Columne, on the Water, in the Fierie Columne, Anno M. DC. XL.

47 48 49 50 51

Met Privilegie der Ed. H. M.
Heer en Staten Generael
voor twaelf jaren

Pascaarte

Van Het Canal Tusschen
Vranckrÿck en Engelant van West Zÿde
Van Schotlant Als Mede Van Yerlandt
Nieulycks Beschreven Door
Jacob Aertsz. Colom

52 53 54 55 56

I. Blasques
Sond van Blasques
Brandon hil
Lupre hooft
Slyne hed
Mothill
Boake
Clare
Blaerock
Endkie
Brodhaven
Stack van Brodhaven
Carrickfergus
Poenshoofd
Black-hed
Clare
Borran
Gallway
Bresil
Boyle
Moye
Lymricke
I. Ranglineborne
Endrago
Sligo
Sligo haven
Ballishaven
Dungallon haven
Dungal
Kilcg
I. Aran
Stacx
Klady
YR
LA ND
Dubling
Howth
Drogheda
Dondalck
Carlingfoort
Monter van Carling foort
Dondrom
S. Lanes point
Lanes haven
Ardglas
Strangfoort
Strangford
Knockfergus
Band haven
Magnillans point
Towns
Castel
Donluse
Ferry Bridge
Skeres
Kierkens
Lough foyl haven
Berry
Londonderry
Enesterhull
C. Petrus
S. Patrice
Martin
I. Rangleens
Zudrock
Norstock
de Mayde
Islands Iles
Terrey
Ila
Collen
Loughrey
Creisfoerd
Kirkenbrick
Etherschon
Dumfrise
Egremond
Ravenglas
Lancaster
Carlisle
Air
Irwin
Ayr
I. Arrey
Glasque
Tarbath
Cantyre
Jura
Rum
Skye
Sunsalle
Lewis
Loch brune
Skyrasin
I. Handa
C. Wrath
SCOTLAND.

Les Costes Marines du Canal entre la France et Engleterre Schotlande et Yrlande nouvellement deserit per Iaques Colom.

Duitsche mijls 15 in een graedt	Lieues d'Allemaigne 15 en un degre
Spaensche mylen 17½ in een graedt	Lieues d'Espaigne 17½ en un degre
Engel. en Fra. mijle 20 in een graedt	Lieues Angl. et Franc. 20 en un degre

De Cust van Bretaigne tusschen Porterieux en Heissant

Duytsche mijlen 15 in een Graadt Lieues d'Allemai 15 en un deg.
Spaansche mijlen 17½ in een Graadt Lieues d'Espaig 17½ en un de
Eng. en Frans mijlen 20 in een Graadt Lieues Ang. et Fra. 20 en un de

Portorieux
Pontrieux
Trieux stu
Port blanc
Tregur
Vlie haven
Lanuhoe stu
S. Ian de Doy
Morlaix
Morlaix
Brijack
Pickels
Canyn
't Groen Eylant
Oosterzee
Westerzee
Seuen Eylden
Dit zijn de Pettits
Rockeduve
Caen
Foße stu
Baieux
Estrechan
Hoeck van Touchet
Gerfliet
De Seine
Rettiers
Hable neuf
Hable de grace
Struijsaert
Tocam
S. Valery en Caux
Waraige
Diepe
Vegart
Criel

Duytsche mijlen 15 in een Graadt Lieues d'Allemai 15 en un deg.
Spaansche mijlen 17½ in een Graadt Lieues d'Espaigne 17½ en un deg.
Eng. en Frans. mijlen 20 in een Graadt Lieues, Engl et Fra. 20 en un deg.

Les Costes Marines de Normandie et Britaigne entre Tresport et Heyssant

BRETA IGNE

Landerneau
Brestwater
Bagijn
Brest
Blancmoutes
Kimmeneßen
S. Matheus hoeck
S. Matheus Closter
Fenestiers
Conquet
Conquets hoeck
Conquets voert
Blanc bay
Pinies
Le four
Bacavent
Perfal
Bel
Halman
Heilsant
Zuijdhagels
Nordhagels
Obrurach
Port bimel
Dinant
Pont Orsum
Aurentie
Mont de S. Michiel
Lancala
Malo
S. Seledor
C. de Fierde of C. de Taye
S. Brieux
Porterieux
Weesergat
Oosterend
Heeysoen
Swamber
Oosterbanck
Lafyeye
Granville
De Sausee
Mopke
Mortesum
Bufkin
Gaure
Ekeron
S. Hilarius
Iarzee
Trinite
Buf
Reckeduve
Markol
La Honge
I. de S. Marcus
C. de Vorha
C. de Barfleur
C. de Wijck
Chierbourgh
Sarck
Arck
Arem
Garnzee
C. de Grife
Garnzae
Ras van Blanckenett
Ornay
Ornay
C. de la Hague
Baroches
Casquettes ofte Kiscaßen

De Custe van Normandie van Diepe tot Porterieus

Duytsche mylen 15 in een Graadt Lieues d'Allemai 15 en un deg
Spaansche mylen 17½ in een Graadt Lieues d'Espag 17½ en un de
Eng. en Frans mylen 20 in een Graadt Lieues Ang. et Fra. 20 en un de

De Cust van Bretaigne tusschen Porterieux en Reissant

Portorieux
Pontrieux
Tantriers flu
Portblanc
Irgur
Vlie haven
Lamingo flu
Morlaix
Brijack
Pickels
Canijn
Groen Eylant
Steuen Eylden
Drlaken Pottel
Ogstergat
Westergat
Rockeduve

BRETA

IGNE

Landernau

Brestwater

Bagija

Brest

Blanemonnes

Kimmenessen

S. Mathieus Cloſter

Fenefferez

Conquet

Conquets Port

Bal

Kalman

Heilsant

Blanc baij

Pinies

Le ſeur

Bacavent

Penfil

Zuijdhagels

Noordhagel

Obruraah

Port bingel

de lion

Roſcon

Ylabis

Ellorgat

Treſport

Diep.

S. Valery.
in Caux.

Fecam.

Struyſaert

The ſecond part of the Fierie Columne.

THE SECOND BOOKE.

Of the

WESTERN NAVIGATION.

Containing

The deſcription of the Sea-coaſts of France, from Treſport to Roſcou, and the coaſt of England, from Fierley weſtward, to Englands end, the Channell of Briſtow, and with all the Sea-coaſts of Ireland.

The firſt demonſtration.

Wherein

Are ſet forth the Coaſtes of France, from Treſport to Roſcou.

FRom the Oldman to Diep, the courſe is ſouthſouthweſt ſixteene leagues, but from the Somme to Diep ſouthweſt and by weſt eight or nine leagues. About halfe wayes betweene the Some and Diep, lyeth the River of Heu, within it on the north ſide lyeth Treſport, being alſo a tyde-haven, where men muſt goe in at high water, and at low water lye dry.

Treſport

Diep. At the eaſt ſide of the Haven of Diep, lyeth a rane of rocks, and from it lyeth a little riffe of chindle towards the north, or the weſt; to the ſouthwards of this riffe goeth in the channell, about ſoutheaſt in, it is very narrow, and a ſhort in-let, therein lye three buyes in the middeſt of the deepe, not above a ſtones caſt one from the other, men may run in on both ſides of them; coming to the end of the buyes, they muſt keepe the middle of the channell, and run in betweene the heads, untill they come within the towne, and there make faſt with a cable on the ſhoare. Men may not ſaile in there before flood, but not at halfe ebbe; at low water it falleth altogether dry, but within at the Towne men may ride afloat, at high water there commeth three fathom, or at the higheſt not more then 3 fathom and a halfe water, there come out alwayes Pilots to bring ſhips in.

S. Valery. in Caux. From Diep to Saint Valery in Caux, it is weſtſouthweſt foure leagues, that is alſo a tide-haven, where you muſt goe in with high water, it is a narrow channell, where you goe in between to the Heads, there is neither ſand nor banke before it that can hurt you: being come in, you may let your anckor fall, and make you faſt with a cable on the ſhore. He that hath neither cable nor anckor, may (being come there within) ſaile his ſhip on againſt the ſhoare in the chindle, and ſo ſave his ſhip and goods without dammage.

Fecam. From S. Valery to Fecam it is w. ſ. w. foure leagues, that is a deepe tyde-haven, there ſtayeth at low water little leſſe then 2. fathom water. At the eaſt ſide of the havens-mouth lyeth a banke or plate, men may with ſmall ſhippes ſaile in through betwixt it and the land, and ſo runne in, ſounding, borrowing it eight or nine foot alongſt by the eaſt ſhoare, which is flat. For to ſaile into the weſtwards of the plate, you muſt keepe the tower of Fecam, without the land, or without the Weſt point of the Haven, and then it ſhall bee ſouthſoutheaſt from you, run then upon that mark into the Haven, and then the foreſaid ſand ſhall remaine on the larboard ſide of you, and at halfe flood you ſhall have in the Havens-mouth 2. fathom water, being come in before the towne, you may anckor there by the Weſter ſhoare in three fathom.

Struyſaert From Fecam to Struyſaert it is weſtſouthweſt three little leagues. Without the poynt of Struyſaert lye two high ſharp rocks. From thence to Seynhead it is ſ. and ſ. and by weſt 2. leagues and halfe.

About northweſt from Seynhead lyeth a bancke, upon which at low Water remaineth no more then two fathom and a halfe water: when the towne of New-haven commeth without Seynhead, then are you thwart of the banck: For avoid it, run in cloſe aboard the Seynhead, alongſt untill you come within the firſt mill, there let fall your anckor in ſix fathom, and ſtay for a Pilot to bring you into the haven.

For to ſail into the river of Roan.

For to ſaile into the River of Roan, comming from the north or the eaſt, you muſt runne cloſe aboard the land to the northwards of Seynhead, and alongſt by it, ſo long untill the ſouth ſide of the river come unto the point of Seynhead, then runne in with it, untill the land to the weſtwards of Newhaven come without Newhaven, ſaile then unto the Haven of Newhaven. Or elſe, if you will goe without about the banke or the Rettires, then edge over to the weſtwards ſo far from the land untill the river come open, ſaile then towards the point of Tochet, and run in upon your lead by it, there is at high water three fathom, & at low water no more then one fathom. The Rettires is a ſtony bancke, lying in the middeſt of the River of Seine, lying over towards the point of Honfleur, at low water it falleth at ſome places drie, at halfe flood it is to the ſouthwards three fathom, but to the northwards 2. fathom deep. When the land of Caen is without the point of Seynhead, and you ſaile then with it, ſouth on, then you runne to the weſtwards of it, or alongſt without it. Or elſe, if you keepe Struyſaert a handpikes length without the point of Seynhead, then you runne alſo without it. When the eaſter gate of New-haven commeth over the eaſter head, and the eaſter mill, and ſaile then ſo on, keeping them ſo, then you runne in right to the northwards of the Rettires, and alſo you can take no hurt of the banck that lieth towards Seynhead. At Habell or New-Haven men muſt goe in at a high water, and within lie everie tide drie.

The river of Seine muſt be ſailed into upon the tide, when the moſt, or the ſtrongeſt of the flood is ſpent, then you may ſaile alongſt by the land upon your lead, untill you may ſee in open into the river of New-haven, when then the ſouther Caſtle commeth over the eaſter-head, and the mill; run then right in upon it, but it is beſt to anckor halfe wayes betwixt the caſtle and Seynhead, and there to ſtay for a Pilot: If there come none off, then ſaile from thence right with the Caſtle that ſtandeth upon the head, there it is deepeſt water.

To ſaile from New-haven upwards, towards Roan, is not well to be done without a Pilot, you muſt goe with the tide through the firſt travaille or banckes, which lie from New-Haven to Honfleur ſ. e. alongſt by the ſouther-land, and from thence alongſt the north ſide of the River to Quillebeuf, being come there, you are through the firſt travaillie. You muſt alſo be well adviſed, and take good heed for the ſtrong ſpring by the Normans, called La Barre, which everie tide commeth on ſo ſtrong with the flood, that anckors and cable have enough to doe to hold a ſhip: For that and other dangers more, it is not good nor convenient to ſaile up the river without a Pilot.

Tochet. Two great leagues to the ſouthwards of the river of Roan, lyeth a Tyde-haven, called Tochet, on the weſt ſide of the entry ſtandeth a beacon, by it you muſt go in, or you may ſound it in by the Eaſter ſhoare. Southweſt, or Southweſt and by ſouth from the poynt of Seynhead, about ſix or ſeven leagues off, lye many bankes, a good wayes in ſea, you may ſaile on both ſides of them (as well to the eaſtwards as to the weſtwards) into the Foſſe of Caen, which lyeth in moſt ſouth, and lyeth in a Baye. At the weſt ſide lyeth a chindle, where men may ride within it, it is wyde & broade, and all ſandy ſtrand, the Eaſtland is ſandhils, & farre flat in ſixe & ſeven fathom, there men may go in, ſounding with the ſounding pole.

Foſſe of Cean.

C Schierborough. From Seynhead to Cape de Barflenr, or Cape de Schierborough, the courſe is weſt nineteene leagues. About foure leagues to the eaſtwards of it lye the Ilands of S. Marques, men may ſaile round about them, but it is not there very cleane.

S. Marcus La Honge A league to the weſtwards of the Ilands of S. Marcus lyeth a Honge a flat Tower, to the weſtwards of it lyeth the poynt of Barfleur, betwixt both is a great baye, where men may lye in ſix or ſeven fathom land-lockt for a n.n. weſt winde. A Northeaſt winde bloweth there open in.

From the north poynt or C. de barfleur (which lyeth northnorthweſt from you, when you lye in the road) lyeth off a banck or little riffe, yet a ſhippe may go over it. Northeaſt a league and a halfe of from the foreſaid poynt lyeth a rock under Water, where ſhippes may not go over.

Sunckenrock.

From C. de barfleur to Schierborough it is weſt and weſt northweſt foure leagues, that is a little Tyde-haven. To the weſtwards of the poynt of barfleur lye ſome foule grounds, if you keepe the high land of Schierborough with-one the Cape de Wyck, you ſhall not come too neare them.

C. de wyc

Before Cape de Wyck is a good roade in ſix fathom, a little to the eaſtwards of the two high rockes in a ſand-bay.

Before Schierbrough lye ſome rockes, or little Ilands, which are cleane round about, to the weſtwards of it lyeth a Tyde-haven, called the Foſſe of Moberille, before it on both ſides lye 4 or 5 high rocks, at high water men runne through betwixt them, and ſo into the Haven. A great league and a halfe to the weſtwards of it, lyeth Cape de Hague.

Cape de Haghe.

Two leagues weſt and by north from Cape de Hague, lyeth the Iland Aldernay or Ornay, betwixt them goeth the Race of blancker through. Aldernay or Ornay is about three leagues long, & lyeth eaſt & weſt. The eaſt end is cleane, men may ſaile reaſonable cloſe alongſt by it, but the weſt end is very foule: There lye ſome little Ilands cloſe by the weſt end, being paſſed them, men may ſayle towards Iarſey without any feare.

Ornay. The Race of blanckert.

To the ſouthwards of the foreſaid little Ilands at the weſt end lyeth of a ledge of rockes, within it, on the ſouth ſide it is cleane, except at the ſouth poynt, that is alſo foule. He that will anckor on the ſouth ſide of Ornay, muſt be mindfull thereof, & anckor a little to the eaſtwards of the Tyde-haven.

From the weſt end of Ornay lyeth a great multitude of rockes weſt & by north, & weſtnorthweſt of three leagues into the ſea.

Upon the outermoſt & weſtermoſt end, lyeth a great high rocks with many other ſmaller rocks about it.. Halfe wayes betwixt this great rocke and Ornay lyeth another great rock, but not ſo high as the foreſayd weſtermoſt, from it lye of a multitude of rockes towards the outermoſt, which fall dry at low water, but at high water many lye under water. Theſe two great rockes are called by the French Les Caſquettes, & by the Durch the Kiſkaſſen, & by the Engliſh the Caſkets. Cloſe by the weſt end of Ornay, towards the Caſkets, lye other two great ranes of rockes, called the Barroches.

Caskets. Barroches

From the eaſt poynt of Ornay to the eaſt end of Garneſey (about to the ſouthwards of Ornay) the courſe is weſt ſouthweſt, ſeven leagues; but from the Caskets to the weſt end of Garnſey ſouthweſt and by ſouth ſeven leagues.

If you will anckor under Garnſey (comming from the Caskets) then runne on to the northeaſt poynt of Garnſey, & ſo far to the eaſtwards of it, untill you get ſight of the caſtle that ſtandeth upon the rock on the eaſt ſide of Garnſey. Or if you come about to the weſtwards of the Caskets, then goe on ſoutheaſt, or ſomewat more ſoutherly, untill the northeaſt poynt of Garnſey by ſouth and by weſt from you, ſayle then towards it, you ſhall come in ſight of that foreſayd caſtle upon the rocke. Bring that over the ſouth poynt of Garnſey, and ſayle in upon that marke, betwixt the Iland Arem, or Harm, and Garnſey, untill you come by the foreſayd caſtle, betwixt theſe ilands it is on both ſides full of rockes, whereof you muſt take good heed, eſpecially on the larboard ſide towards Arem, when you are come by the caſtle, you may anckor within or without it, where you pleaſe, without the caſtle in twelve or thirteene fathom; or within the caſtle, (that is betwixt the caſtle and Garnſey) in ſix or ſeven fathom at low water, it doth flow there ſix or ſeven fathom up and downe, which men muſt reckon upon.

Roade under Garnſey.

Vnder the ſouth ſide of Garnſey men may ryde for northweſt, north, and northeaſt windes. If you come from the weſt, or from the Caskets, you muſt runne cloſe about by the ſouthweſt poynt, called C. de Gruſe; and alongſt by the ſouth ſide of the Jland, well halfe wayes the Iland, and anckor there where you think good, in eighteene or nineteen fathom. If the wind ſhift to the ſouthweſt, or to the weſtſouthweſt, then you may runne about by the ſouth poynt unto the foreſayd caſtle, and anckor there either without or within it, as here before is ſayd. From the aforeſayd ſouth poynt, lyeth off a litle ledge of rocks, whereof ſome rocks lye above, and ſome under water, that you muſt avoyd when you ſaile about by it.

Beufkin. Eckeron. Granville. la Shauſe Mount d S. Michi Concalle S. Malo Siſembe Newſte Con

South and by weſt, & ſouthſouthweſt about eight leagues From Garnſey lyeth a great ledge of rockes, more then a league great, called Rockeduves.

Rockeduves.

About two leagues eaſt from Garnſey lyeth the Iland Sarck, there men may anckor round about it in five and twenty, ſix and twenty, and ſeven and twenty fathom. From the north end lye off ſome Rocks, whereof ſome lye aboue, & ſome under water. At the ſouth end of lye alſo ſome rockes, but all aboue water.

Sarck.

Betwixt Garnſey and Sarck lye two other little Ilands, Arck and Arem, or Harm, there men may ſaile through betwixt them.

Arck and Arem.

The Iland Iarſey lyeth from garnſey ſoutheaſt diſtant ſeven leagues, round about this Iland are good roades at divers places. Al alongſt the north ſide men may anckor in ten and eleven fathom. At the ſame north ſide, ſomewhat within the weſt poynt, lye ſome great rockes, a good wayes of from the ſhoare, called the Pater noſters, or Pierreleg. At the ſouthweſt poynt lye many rockes which lye of a great wayes into the ſea, to the northwards of them, to wit, betwixt them and the weſtermoſt poynt, at the weſt ſide of Iarſey men may anckor at divers places in ten, eleven and twelve fathom. At the ſouth ſide of Iarſey is alſo a good road for a northweſt and weſtnorthweſt windes. At the eaſt ſide lyeth S. Catherines baye, there alſo a very good roade for weſterly windes.

Pater noſters. S. Catherines bay.

The weſt end of Iarſey and S. Malloes, or the Iland Siſember before S. Malloes lye ſouthſoutheaſt, and northnorthweſt, eight or nine leagues aſunder. About halfe wayes betwixt both right in the farevvay, lie a great numbet of high rockes together, vvhich containe in circuit in ſailing about, ſeven or eight leagues, called the Mankiers, they lye farre tovvards Iarſey, ſome aboue and many under vvater, ſo that is not vvithout great danger to runne through betvvixt Iarſey and the Mankiers.

Mankiers Rockes.

When men vvill ſaile through the Race of blanckert, bound for S. Malloes, they run commonly through betvvixt Sarck and Iarſey, men may alſo ſayle to the eaſtvvards of all the Ilands and ſhovvlds alongſt the coaſt of Normandy, tovvards S. Malloes, in manner as follovveth.

When men come a little paſt the C. Voorha, they ſhall meet (thvvart of the Iland Iarſey) vvith three or foure high rockes, called Le Beuf, men may runne to the vveſtvvards of them, and ſo through betvvixt them and the Iland Iarſey.

Le Beuf.

ſey; or elſe to the eaſtwards of them alongſt by the mayne land, even as they will, towards the riffe of Mortefaim, that lyeth upon the Coaſt of Normandy Southſoutheaſt eight leagues from Cape de Voorha.

Over againſt, or thwart of the Riffe of Mortefaim, lyeth a rane of Rocks lying eaſt and weſt more then a league in length called Beufkin, at the eaſt end many of them lye above, and at the weſt end moſt of them lye under water. Men muſt ſayle through betwixt them and the riffe of Mortefaim that are bound for Granville. Beufkin.

Betwixt the foreſaid Rocks Beufand Beufkin, lyeth another great rane of Rockes called Eckerou, which lye off from the Southeaſt poynt of Jarſey towards Granville; you muſt leave all the Rocks on the ſtarboard ſide, and runne alongſt to the eaſtwards of them. Eckerou.

From the riffe of Mortefaim to Granville, the courſe is Southſoutheaſt, and from Bufkin ſoutheaſt foure leagues.

Granville. Cape de Voorha and Granville are two poynts that lye without the other land. About the ſouth poynt of Granville lye two or three little rocks; along by them men muſt run in within a Pier or head, where the ſhips lye dry at low water. Betwixt C. de Hague, and Granville, men may ſee upon the land many little houſes, milles, and trees, as they ſayle alongſt by it. A little to the ſouthwards of the riffe Mortefaym ſtandes a Church with two ſteeples called Quotanſe, All alongſt this whole coaſt is every where good anckoring in ſix or ſeven fathom, eſpecially a little to the ſouthwards of Cape de Hague.

About two leagues weſt from the poynt of Granville lyeth another great rane of Rocks two great leagues long lying eaſt and weſt called La Shauſee, betwixt them and the point of Granville men muſt ſaile through that are bound for Concalle or S. Maloes. la Shauſee.

About five leagues to the ſouthwards of Granville, in a great baye, lyeth an iland before the River of Aurantie, about a league without the land, called Mount de S. Michiel, upon it lyeth a Caſtle, or little towne called S. Michiel, with a high Tower which men may ſee at ſea. This Bay is to the ſouthwards of Granville, within the rocks of Concalle, very flat and riſing ground, from thirteene, ten, eight, ſix, and foure fathom to one fathom, ſo that at low water the Bay falleth ſo farre dry, that from the ſtrand men ſee no ſea nor water. Mount de S. Michiel

Concalle From Granville to the point of Concalle the courſe is ſ. w. 5. leagues, from that eaſtwards lye three rocks, under which men may anckor in ten fathom. For to ſayle to the town men muſt run in betwixt the point and the foreſaid rocks. It is betwixt them both 8. and 9. fathom deep. Before the towne it is ſhowlder water. To the northwards of the towne lye other two rocks, there men may alſo anckor under in 5. and 6. fathom water.

From the outermoſt rocks by the point of Concalle untill you come before S. Maloes, the courſe is weſt, and weſt and by ſouth 5. leagues.

S. Maloes. Siſember. Before the haven of S. Maloes, lyeth an Iland called Siſember, upon the weſt end thereof ſtandeth a mill, and upon the eaſt end a Church with ſome little houſes being a Friery comming out of the ſea, you can but even ſcarce ſee the Church, but being within the Iland, you may ſee it better, becauſe it ſtandeth on the ſouth ſide of the Iland. A great ſhot of a caſt peece to the eaſtwards of Siſember, lyeth a great high rock called the Meuweſtone: betwixt that and Siſember it is all full of Rockes and ſtones, which at high water lye moſt under water: there is a little channell betwixt them both, which the French men uſe with their ſmall ſhipping, through betwixt the rockes, but is not to be uſed with great ſhipping, neither by them that are not very well acquainted with it. Meuweſtone

Betwixt the Meuweſtone and ſome other rockes to the eaſtwards of it, lyeth in a channell ſouth and ſouth and by East in, called La Congie. For to ſayle in there you muſt runne in cloſe aboard to the eaſtward of the Meweſtone, ſoutheaſt and by eaſt right in with the Towne, untill you be gotten in two third parts of the diſtance (betweene the Meuweſtone and the Towne) from the Meuweſtone, and are one third part of the diſtance from the Towne, that is when the Meuweſtone is twice ſo farre from you as the town, then you ſhall ſee by the northweſt poynt of the town two great rockes, about a ſhot of a caſt peece from the foreſayd poynt; upon each rock ſtandeth a little houſe, the outermoſt is the ſmalleſt; and is called the little Bee, the neareſt to the towne is the greateſt, and is called the great Bee, ſayle then towards them, and run in about them within a cables length of them; but keepe that courſe ſo long, untill that the little tower (that ſtandeth a little to the ſouthwards of the towne upon the poynt) come over the tower of Bore a little to the eaſtwards of Saledoof, keepe them one over the other, and ſayle ſo in, unto the ſouth end of the town, where the mils doe ſtand, then you ſhall ſee there upon the rocks two beacons, run betwixt them through at high water untill you come within the Towne, at the eaſt ſide; the ſhippes lye moored with foure cables, dry at low water, two faſt on the Towne, and two upon the ſand. Betwixt theſe two foreſayd Beacons, to the ſouthwards of the towne, and thereabouts, is the ground ſharpe, rocky and ſtony, therefore men muſt take heed not to ſtay there at low water, or to ground there, but within on the eaſt ſide of the Towne, it is cleane ſandy ground, there may the ſhippes lye aground without danger. Little and great Bee.

A little within, or to the ſouthwards of the foreſayd rock the little Bee, men may anckor in five or ſix fathom water at low water, ſo that the tower of Bore cometh little to the eaſtwards of the little Tower upon the poynt to the ſouthwards of the towne, that roade is called by the French La Ranſe, there men commonly firſt anckor, and ſtay for high water, for to goe in about to the ſouthwards of the Towne. It floweth here at S. Maloes, and thereabouts, ſeven fathom up and down with an ordinary tyde. The Road la Ranſe.

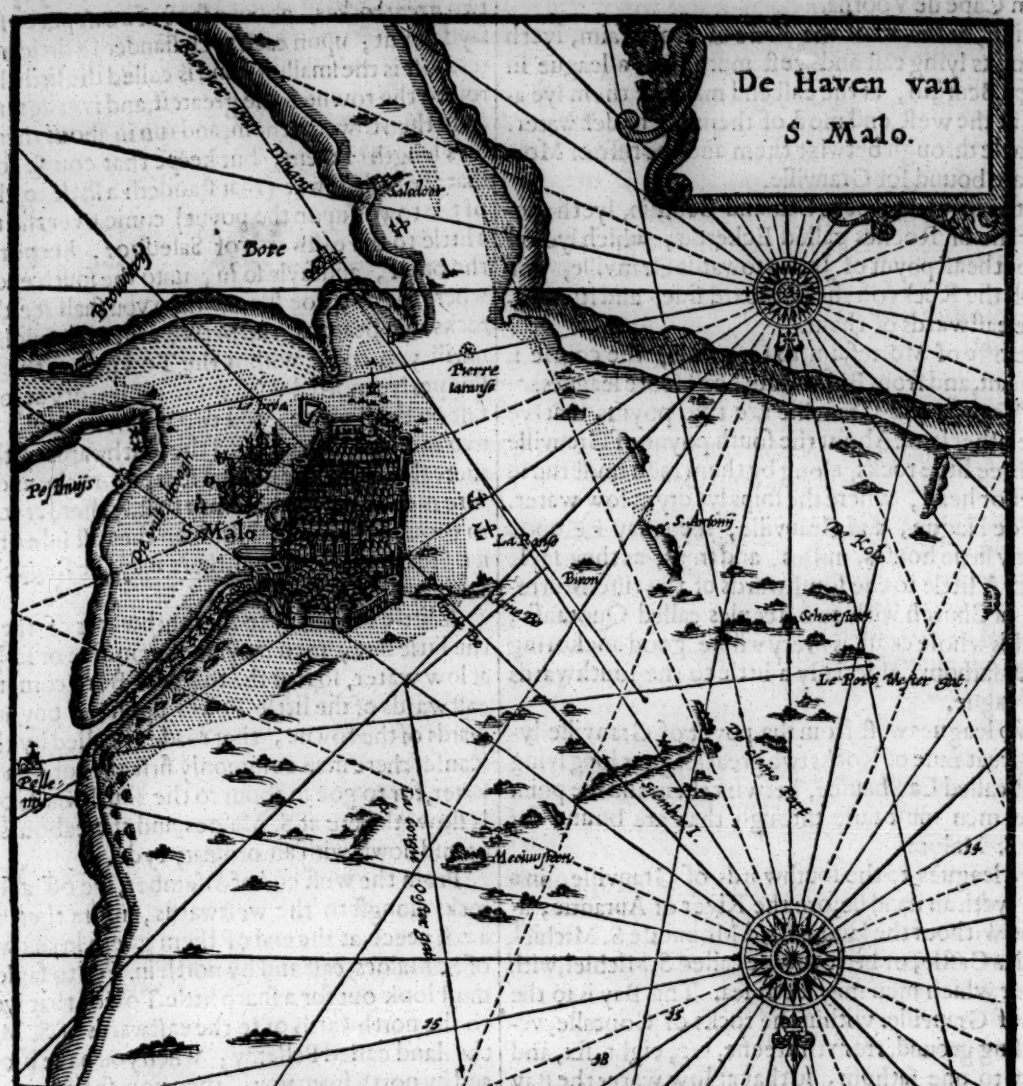
From the weſt end of Siſember, lye off alſo a great many rocks alongſt to the weſtwards, more then a great ſhot of a caſt peece, at the end of them goeth in the weſter channell of S. Malōes, eaſt and by north in. For to ſayle in there, you muſt look out for a ſharp little Tower, that lyeth ſomewhat to the northwards or to the eaſtwards of S. Maloes, within the iland called Pellemy; when you have brought that eaſt and by north from you, then you ſhall ſee upon the ſhoare right againſt it, a great black rock, which for blackneſſe ſheweth it ſelf without all the other rocks thereabouts, and thereby is very good to be knowne: Bring that rock and the foreſayd little tower one in the other, and ſayle ſo right in untill you come thwart of the Iland Siſember, or elſe that the little tower (upon the poynt to the ſouthwards of the towne) come to the tower of Bore, to the eaſtwards of Salidoor, ſayle then towards the road of La Ranſe to the ſouthwards of the little Bee; or elſe if it be high water, you may run in upon the markes, and then in about to the ſouthwards of the towne, as here before is ſayd.

When you ſayle into this weſter chanell, you ſhall leave on the ſtarboard ſide a high rock (called the Schoortſteen) with more other rockes to the weſtwards of it, which at high water are moſt of them overflowne. On the north ſide, that is on the larboard ſide, lye alſo many rocks, whereof many of them are overflown at high water, and alſo many remain above water.

Yet a ſouther channell lyeth in by the land to the ſouthwards of the rock of S. Antony, upon markes that men doe ſee a ſtearne the ſhip, but it is not uſed but with ſmall ſhips. More, a Souther channell.

About halfe wayes betwixt the weſter channell of S. Maloes, and C. de Farela, lyeth a ſtony banck under water. A little to the weſtwards of C. de Farela, lyeth a great Rock. When you will ſayle from C. de Farela towards S. Maloes, and that you keepe the foreſayd Rock right upon the point of Farela, you ſhall ſo (without ſayle) ſayle upon the ſtone-banck: but if you keep the rock hidden under or behind the poynt, then you ſhall ſayle alongſt to the ſouthwards of it. Or elſe if you keep it without the point (ſo that you may ſee through betwixt it and the point) then you ſhall ſayle alongſt to the northwards of it. The foreſayd rock is a good marke for to know Cape de Farela by. Stone bank

S. MALO.



Foure leagues weſt by S. Maloes lyeth a great Sand-bay, where men may lye landlockt for all winds: Men doe anckor within a great rock, right againſt a mill and ſome trees.

C. Farela About two leagues northweſt from that Sand-Bay lyeth the Cape de Farela, which is alſo called Cape de Late, after the Caſtle de Late, that ſtandeth to the eaſtwards of the poynt, there is a good Roade for weſt and ſouthweſt winds.

Oyſter-banck. Two great leagues northweſt from the entry of the Haven of S. Maloes, lyeth the Oyſterbanck, there under it men may anckor in 6. or 7. fathom.

I. Briack. To the weſtwards of Cape de Farela unto the north end of the iland Briack, the courſe is weſt and by north nine or ten leagues. Two leagues from the land weſt from the Cape lyeth a great rane of rocks above water. Betweene the foreſayd Cape and the iland Briack lye the Havens or Rivers of S. Brieux and S. Benit.

S. Brieux, & S. Benit.

The iland Briack is two leagues long, and lyeth South-ſouthweſt and northnortheaſt, when you come from the eaſt, you ſhall ſee two milles upon it, and betwixt them a high round hill, with a litle houſe upon it: you may ſail round about this iland, and may make roads on every ſide where you will, although round about it here and there lye ſome rocks, yet it is all over good anckor-ground. A good wayes off from the northeaſt poynt lyeth a rock, called Souffe, and at the north end lyeth a ledge of rocks under water, whereof you muſt take heed.

Pickeles. A great league weſtſouthweſt from Briack, three or foure leagues a ſeaboard the land, lye the out-rocks, called the Pickeles, men may ſayle round about them alſo, but to the eaſtwards of them towards the maine land, lye many ſuncken rocks.

Foure leagues to the weſtwards of Briack lyeth the Port Blanck upon a great river, called Lantrilliers, to the Eaſtwards of this Haven lye off many out-rocks.

Portblank Lantrilleth.

7. Iſles. To the weſtwards of Port Blanck, lye the Sept Iſles, or ſeven Ilands, lying from the Pickels diſtant five leagues eaſt and weſt. A league to the Southwards of them lyeth the green iland, there you may ride round about it, Betweene the ſeven Ilands you may not ſayle through, but to the Southward of them, betwixt them and the Greene Iland goeth a broade channell through. From the Eaſtermoſt Iland lyeth off a foule riffe to the ſouthwards, upon the outermoſt end of that riffe lyeth a rocke, as a good marke for to ſayle about the riffe. Northweſt from the weſt end of the ſeven Ilands, lyeth alſo a ſuncken rocke, which at low water may bee ſeene, Men may alſo ſayle alongſt by the coaſt from Port Blanck, within to the Southwards of the Green Iland, and come out againe into the ſea to the weſtwards: From thence northweſt off into the ſea, lye the Triacle Pots, theſe are great fearefull out-rockes, which lye ſpread wide and broade weſtſouthweſt from the Seven Ilands, and foure or five leagues a ſeaboard the land.

Greene Iland.

Triacle Pots.

R. Laminoe. Betwixt the Triacle Pots and the Seven Ilands lyeth the River of Laminoe, to the weſtwards of the Greene Iland: For to ſail in there, men muſt take good heed of the north-eaſt poynt, which is foule.

Thwart of the Seven Ilands, upon the maine land, ſtandeth a Church with a high ſteeple, called Our Lady of the Cleateneſſe, thereby men may know them.

Thwart of the Triacle Pots ſtandeth alſo a high Tower, thereby men may know when they are neare them, but it muſt be very cleare weather before men can well diſcerne it upon the land.

Hee that commeth by night or darke weather from the Fourne, or Uſhant, and is bound to Saint Maloes, let him not goe with a ſoutherly winde, to the eaſtwards of eaſt-north-

northeaſt, or northeaſt and by eaſt with a weſterly winde, ſo long untill he hath the length of the Triacle Pots, that they be on his broad ſide. The flood falleth ſoutheaſt within the Triacle Pots and the ſeven Ilands, and ſhould by night eaſily draw a ſhip towards them. By day, or when there is ſight, there is no ſuch danger.

Within the Triacle Pots lyeth the tyde haven of S. John de Doy, two leagues to the weſtwards of the greene Iland, and two leagues to the eaſtwards of Morlions, men may ſaile from thence through the rocks unto Morlions, and anckor in five and ſix fathom at low water.

Morlions. To the weſtwards of the Triacle Pots lyeth a great rock, the eaſter entry of Morlions lyeth from it ſouthweſt and by ſouth diſtant two leagues, but the weſter entry lyeth from it weſtſouthweſt and weſt and by ſouth foure or five leagues, that goeth in by a great long ragged rock. This entry men may ſayle in ſouth, and ſouth and by weſt, unto the caſtle of Morliax. Morliax; being about the caſtle they may run through the rocks againe to the eaſtwards, and run out againe at the eaſter entry northnortheaſt, and north and by eaſt into ſea, according as the tyde ſhall be, the flood commeth there out of the northweſt.

If a man would goe from Morliax to Morlions, hee may goe on eaſt through the rockes, and ſo ſayle to it: It is all broken land, and there remaineth at low water five fathom depth.

S. Paul de Lion. If you bee bound to S. Paul de Lion, you muſt run right with the great rock, with the two horns or Saddle, and ſo cloſe alongſt by it: being paſt it, edge to the land upon the ſtrand lyeth a village, called Plempoll, ſaile right with it, and alongſt by it, to the eaſtwards of it goeth in the river. Theſe are all tyde-havens, but betwixt the rocks of the Morlions, and the iland Ba, it is at low water deepe enough for to ſave a ſhip.

The land of S. Paul de Lion is double land, upon S. Pauls Church ſtand two ſharpe ſteeples. The Iland Iſle de Bas, lyeth thwart before it, upon it ſtandeth two ſtakes, to ſee to a farre off like milles. Upon the eaſt end of that Iland lieth a very high ragged rock, when you are to the eaſtwards of this rock, you ſhall ſee two ſharp ſteeples a ſpace one from the other, theſe are the ſteeples of Plempoole: you may alſo then ſee the Caſtle of Morliax, lyeth ſoutheaſt from you, upon a high rock.

Iſle de Bas The foreſayd outermoſt long ragged rock of Morliax, lyeth from the top of the Iland Iſle de Bas, eaſt, and eaſt and by ſouth three or foure leagues. Men may ſayle alongſt by the maine land, within and through theſe rocks, untill they come to the ſeven Ilands, they are all great bayes, whereat moſt places is good anckor ground.

Roskow. Within the Iſle de Bas lyeth the towne of Roskow, you may ſayle into the haven of Roskow at both ſides of the Iland.

For to ſayle into the eaſter channell, when you are paſſed by the high rocke with the Saddle, or two hornes, called Le Taureau, and come by the land, betwixt the eaſt poynt of the Iland, and the poynt of the maine land over againſt it, you muſt ſayle in keeping the middle of the channell. It is in this channell ſeven and eight fathom deepe. Being come within the poynt of the Iland, you muſt runne in about by it, weſt and by ſouth, and weſt on, untill you come about halfe wayes within the Iland, and anckor there in eight, or nine fathom. And then Roskow ſhall lye South and ſouth and by eaſt from you.

If you will ſayle into the weſter channell, you ſhall ſee to the weſtwards of it, cloſe by the maine land, two great long Rocks. From the poynt of the maine land, a little to the eaſtwards of the eaſtermoſt long rock, lyeth off a riffe from the land, which maketh the weſt ſide of the channell, you muſt run in Southeaſt betwixt that riffe and the weſt poynt of the Iland, and when you come within the poynt of the iland, you muſt edge up northeaſt unto the middeſt of the iland, and anckor there as here before is ſayd.

From Iſle de Bas alongſt to the Fourne or Uſhant lyeth the coaſt weſtſouthweſt 16. leagues.

Road under the Neſſe. The point of Dongy Neſſe lyeth from Dover Southweſt and by weſt diſtant 9. leagues. At the eaſt ſide of the Neſſe in Romans Bay, thwart of the Romans Tower, is a good road for weſt and Southweſt winds: For to anckor there, runne ſo farre in the Bay, that the poynt of the Neſſe bee South, and South and by weſt from you, anckor there in about 7. or 8. fathom; you may alſo anckor on the weſt ſide of the Neſſe, for a northeaſt winde, ſo that the poynt lye eaſt and by north from you.

Camber of Rye. For to ſayle into the Camber of Rye, comming from the weſt, you muſt keepe Beachy without the poynt of Fairley, and run ſo towards the Neſſe, and being come in faire by it, run in within two cables length alongſt by it, unto the end of the Neſſe, then edge up to the weſtwards, and leave the beacons upon the ſtarboard ſide, untill you come before the caſtle Camier, that ſtandeth upon the ſouther chindle, there you may anckor in 4. or 5. fathom: From thence along even unto the Towne of Rye, it is all ſet with beacons, which ſtand alongſt by the eaſt ſide of the Deep, upon the Daries, which at low water fall dry. In ſayling unto Rye, you muſt leave all the beacons unto the ſtarboard ſide, and run indifferent cloſe alongſt by them.

Of the tides and courſe of the ſtreames.

Betwixt Diep and Struyſaert without the land in the fareway, the flood falleth northeaſt and by eaſt, and the ebbe Southweſt and by weſt.

At New-haven, and in the River of Koan a Southeaſt Moone maketh a high water.

From Struyſaert to Caen in the Foſſe, the flood falleth Southſouthweſt, and the ebbe northnortheaſt.

Before the haven of Caen a Southſoutheaſt maketh high water, within the haven a South and by eaſt Moone.

At Marckell, la Honge, Barfleur, Sherborough, and C. de Hage by the ſhore, a South and by eaſt Moone.

From Seynhead to Barfleur the flood falleth by the land eaſt by north, and the ebbe weſt and by South. But in the channell a Seaboarde the land the flood falleth away eaſtnortheaſt, and the ebbe weſtſouthweſt.

At Cape de Hague by the ſhore, a ſouth and by eaſt moon maketh high water.

In the race of Blankert a north and by eaſt, and ſouth and by weſt moone. The flood falleth through the race northeaſt, and the ebbe ſouthweſt.

In the Ilands alſo a north and by eaſt, and ſouth and by weſt moone maketh a full ſea. Men cannot well reckon the tydes there, becauſe they have divers courſes about the ilands, but for the moſt part northeaſt and by North. A quarter of the tyde the flood falleth thwart into the Caskets.

In Garnſey a north and by eaſt, and South and by Weſt moon maketh full Sea.

At Concalle and Granville a weſtnorthweſt moone.

At Saint Maloes an Eaſt and Weſt Moone maketh high water.

The flood falleth in there at the weſter channell, and goeth out againe at the eaſter channell, men muſt reckon there upon when they will ſayle into theſe channels.

From the iland Briack in the Bay of Benit the flood falleth Southeaſt, but in the fareway eaſtſoutheaſt, and weſtnorthweſt.

At the Eaſt ſide of the iland Briack in the roade Southſoutheaſt. An eaſt and weſt Moon maketh there the higheſt water.

Betwixt the ilands Briack and Garneſey, a weſtſouthweſt moon maketh full Sea, the flood runneth there eaſtſoutheaſt, and the ebbe weſtnorthweſt.

On that coaſt and within the Caskets the tyde turneth continually againſt the Sunne, ſo that it is there never ſtill water.

Betwixt Sept Iſles, or the Seven Ilands, and Garnſey in the fareway, a weſtſouthweſt moon maketh full Sea.

Betwixt Briack and the ſeven ilands, an eaſt and by north and weſt and by South moone maketh full Sea. The flood falleth there eaſt and by ſouth.

Betwixt the ſeven ilands and the outer rocks of Morlions, the flood falleth in ſoutheaſt within the Triacle Pottes towards the Green iland, but in the fareway in the offing, eaſt and eaſt and by north.

At Morliax and S. Pauls maketh higheſt water a weſt and by ſouth Moon, but in the fareway in the offing thwart of it, a ſouthweſt and by Weſt, and Weſt ſouthweſt Moon.

At the Iſle de Bas maketh high water a weſt and by ſouth Moone.

In the fareway there in the offing the flood falleth eaſt-northeaſt and the ebbe weſtſouthweſt, and ſo likewiſe from thence all alongſt the coaſt of Bretaigne, unto the Fourne or Uſhant.

Betwixt Dover and Dongie Neſſe, and likewiſe thwart of the Neſſe, a ſ. ſ. w. moone maketh full Sea.

From Dongy Neſſe to Dover the flood falleth northeaſt and by eaſt, and the ebbe ſouthweſt and by weſt.

Of the Depths.

Before Diep men may ſee the land in twenty and two and twenty fathom.

About 4. leagues without Struyſaert it is deep 20. fathom

Between Diep and Seynhead ſtand alſo many ſharp towers trees & houſes upon the land. Struyſaert is beſt to be known on a great rock like a high tower, thwart of it in the fareway it is deepe 16. or 17. fathom.

About C. de Berfleur and Sherbrough foure leagues from the land, it is deep thirty fathom.

Barfleur is a high poynt, below upon the white land ſtande tha flat tower, two milles, and ſome little houſes, and to the weſtwards of it is more white land.

Upon Cape de Hague ſtandeth a Caſtle, with a little turret; a little to the eaſtwards of it in the land ſtandeth a ſharp tower. Two leagues to the eaſtwards of it lyeth Sherbrough with a flat ſteeple.

The Iland Ornay is upon the weſt end high with a ſteepe going down poynt: the eaſt end is hilly, or with hommocks, but lower then the weſt end, in ſayling by it, men may ſee upon it a Tower or two with ſome milles. Upon the north ſide of the iland lyeth a white hill like a ſandhill.

To the northwards of the Caskets, two leagues from land it is deep 35. and 40. fathom.

Betwixt the Caskets and Garneſy it is 35. and 40. fathom deep, moſt all ſtony ground.

Northweſt about foure leagues from Garneſey is a pitte where it is 80. or 90. fathom deep, elſe it is thereabouts 40. fathom deep.

Betwixt Ornay and Jarſey it is deepe 20. and 25. fathom.

In the fareway of Jarſey, Rockduve and the iland Briack, it is deep 20. and 25. and 30. fathom.

About the Triacle Pots alongſt the coaſt it is 45. and 50. fathom deepe, in ſuch depths men may ſee the land thereabouts. By night it is not good to come neerer that coaſt and the Seven ilands, then in 45. fathom.

Thwart of S. Paul de Lion, and the iſle of Bas, 5. leagues from the land it is deep 45. and 50. fathom.

Courſes and Diſtances.

From Treſport to Diep Southweſt 7 leagues.
From Diep to Fecam, w.ſ.w. 11. leagues.
From Fecam to Struyſart Southweſt and by w. 3. leagues.
From Struyſaert to Seynhead the courſe is Southſouthweſt two great leagues.
From Seynhead to Caen in the Foſſe the courſe is ſouth ſ.w. 6. or 7. leagues.
From Blackneſſe to Diep Southſouthweſt and ſ.w. and by ſ. 17. leagues
From Blackneſſe to Struyſaert, or C. de Caux, ſouthweſt and by ſouth ſomewhat weſterly 29. leagues.
From Blackneſſe to the Caskets the courſe is w. ſouthweſt 48. leagues.
From Blackneſſe to Wight Weſt ſomewhat Southerly 37. leagues.
From Blackneſſe to Beachy Weſt 20. leagues.
From Deep to Wight the courſe is w.n.w. 37. leagues.
From Diep to Beachy northweſt 21. leagues.
From Diep to Dover north, 23. or 24. leagues.
From Seynhead to Diervliet, or the poynt of Sherburgh, w. ſomewhat northerly, 20. leagues.
From Seynhead to Portland n.w. and by w. 38. leagues.
From Struyſaert to the eaſt end of Wight, n. w. northerly 29. leagues.
From Struyſaert to Beachy north 23. or 24. leagues.
From Struyſaert to Fairley, north and by eaſt 27. leagues.
From Struyſaert to the poynt of Dover, the courſe is n. n. e. 33. leagues.
From Caen to Diervliet, or the poynt of Barfleur North W. 16. leagues.
From Dierfliet to Cape de Hague Weſt and by North 8. leagues.
From C. de Hague to the outermoſt of the Caskets weſt and by north. 8 leagues.
From the Caskets to Beachy n.e. and by e. 37. leagues.
From the Caskets to Wight n.e. and by n. 20. leagues.
From the Caskets to Portland n. and by w. 13. leagues.
From the Caskets to the ſteart w.n.w. 19. leagues.
From the Caskets to *Silly* w. ſomewhat northerly 56. leag.
From C. de Hague to C. de Voorha, ſ. and by e. 7. leagues.
From C. de Voorha to Granville ſ.ſ.e. 9. leagues.
From Granville to Mount *S.* Michiel ſ.ſ.e. 5. leagues.
From Granville to the poynt of Concalle, ſ.w. 5. leag.
From the point of Concalle to the eaſter channell of *S.* Maloes, w. and w. and by ſ. 5. leagues.
From the iland *Siſember*, before *S.* Maloes unto C. de Farrele weſt 4. or 5. leag.
From C. de Farrele to the iland Briack w. and by n. 9. or 10 leagues.
From the iland Briack to the Pickeles weſt and by ſouth 2. leagues.
From the Pickeles to the ſeven ilands, w.ſ. w. 5. leag.
From the *Seven* ilands to the Triacle Pots W. S.W. 4. leag.
From the Triacle Pots to the ile de Bas, Weſtſouthweſt 9. leagues.
From ile de Bas to Vſhant W. *S.* W. 16. leagues
From C. de Hague to the Weſt end of Jarſey betwixt *Sarck* and Jarſey through *S.* ſ.w. 9. leag.
From the Caskets to the weſt end of Garnſey ſouthweſt and by ſouth 5. or 6. leagues.
From Garnſey to Jarſey *S.* e. and by e. 7. leagues.
From Garnſey to *S.* Maloes *S.* ſ.e. 16. leagues.
From the *South* end of Jarſey to *S.* Maloes, *South*ſouthеaſt 9. or 10. leagues
From Garnſey to the Rocks Rockduves, *South*ſouthеaſt 8 or 9. leagues.
From Rockduves to Manckers eaſt and by *South* 9. or 10. leagues.
From Rockduves to C. de Farella ſ.e. 10. leagues.
From Rockduves to the Rock Camine *South* and by Weſt 4. leag.
From Rockduves to the iland Briack ſ. and by w. 5. leagues.
From Garneſey to the ſeven ilands *South*weſt and by *South* 15 or 15. leag.
From Caskets to *S.* Paul de Lion ſ.w. 29. leagues.
From the Caskets to the Fourne or Uſhant ſ. w. and by w. 45. leagues.
From the Caskets to the Lizart, W. and W. and by north 37. leagues.
From Garnſey to the Lizart, w. and by n. 37. leagues
From the ſeven ilands to the Lizart, n. w. and by weſt 29. leagues.
From the ſeven ilands to the *Steart* n. and by w. weſterly 24. leagues.
From the *Seven* ilands to Portland northeaſt and by n. 32. leagues.
From *S.* Paul de Lion to the Lizart northweſt and by north 29. leagues.
From *S.* Paul de Lion to the *Steart* n. and by e. 29. leagues.
From *S.* Paul de Lion to Portland n.e. & by n. 40. leagues.
From Dover to Dongy Neſſe ſ.w. and by w. 9. leagues
From the Neſſe to Fairlee, w.ſ.w. 3. leagues.

Heights.

The poynt of *Struyſaert* in 45. deg. 45. min.
The Caskets lye in 45. degr. 48. min.
The ſeven ilands, or *Sept* iſles in 49. degree.
Beachy lyeth in 50. degr. 48. min.

How

Wagmoud

Slot

Slot
Poort
Landt

tRas van Poortlandt

S. Andries Landt

Sandwicks
Sandlandt

Pole

Hanssaft point

Sandwich
Bay

Hampton

Hurst east

Calshot east

Portsmouth

Bleu Ron

De Goelden Eylandt

Nieuport

S. helens

Wicht

Shingle cliff

Wolferts horn

Ornay

Ornay

tRas van Blanckert ofte Ornay

C. de la Hogue

Duytsche mylen 15 in een graedt

Spaensche mylen 17½ in een graedt

Engelsche en Fransche mylen 20 in een graedt

De Custe van Engelant tusschen Fierley en Poorlant

Checester

Arundel

Selsey

Beachy

Nieuwer haven

Guckmer haven

Beveser

Fierley

30

29

27

Trupo
Perÿn
Vaelmuyden
Philly
Mause
Maus east
Doddemanshoft
Penthan
Goyia
Foye
Fawyck
Hallands point
Westhoud
Millbrok
Egdoomb
Pleimuyen
Kattewater
Koexhoofd
Meuston
Wemberge
Ideston
Bult point
Lezard

De Cuſte van Engelant tuſſchen Poortlant en Lezard

Les Costes d'Angleterre de Fierleÿ jusques à Lezard

3 4 5 6 7 8
...ſche mylen 15. in een graedt
...nes d'Allemaigne 15 en un degre
4 5 6 7 8 9
...enſche mylen 17½ in een graedt
...nes d'Eſpaigne 17½ en un degre
4 5 6 7 8 9 10
...e en Franſche mylen 20. in een graedt
... Anglois et Franc. 20 en un degre

Excester
Exmouth
Start point
Sidmouth
Beerr head
Lyme
I. Cob
Brydport
Tingmouth
Darmouth,
Dortmuyen
Torbay
Poortlandt
Kasquettes. alias
Kiscassen
Baroches.

Waymouth
Slot
Slot
Poort
Landt
S. Andries Landt
Studlandt
Sandwich
Pole
tRas van Poortlandt
Hansast point
Sandwich
Bay
Foreret point
Hampton
Hurst cast
Calshot cast
Neuton
Porsmuyen
De Haelden
Eylandt
Wicht
Nieuport
S. helene
Swynechif
Wolferts horn
Ornay
Ornay
tRas van Blankertt oste Ornay
C. de la Hague

Duytſche mÿlen 15 in een graedt

Spaenſche mÿlen 17½ in een graedt

Engelſche en Franſche mÿlen 20 in een graedt

De Cuſte van Engelant tuſſchen Fierley en Poorlant

Checeſter

Arundel

Selſey

Brambor

Nieuwer haven

Cuckmer haven

De Seven Clippen

Bevesher

Fierley

30

29

27

Trupo
Wilde Vaelmuyen
Perÿn
Philly
Mause
Maus east
Doddmans hoofd
Penmarc
Goyle
Fawyck
Falland point
West Hoyen
Millbrok
Eydcomb
Plymouth
Ilton
Lezard
Meeuwstein
Ideston
Koerhoofd
Mayston
Wemberÿe
Ialmouth
Bult point
Pleimuyen
Kallewater
Wagtenaer
Visscherÿs dorp
Darmouth
Dortmuyen
XXX

De Cuſte van Engelant tuſſchen Poortlant en Lezard

Les Costes d'Angleterre de Fierleÿ juſques à Lezard

Duytſche mÿlen 15. in een graedt
Lieues d'Allemaigne 15 en un degre

Spaenſche mÿlen 17½. in een graedt
Lieues d'Eſpaigne 17½ en un degre

Engelſche en Franſche mÿlen 20. in een graedt
Miles Anglois et Franc. 20 en un degre

Excester
Exmouth
Starpoint
Sidmouth
Beerryhead
Lyme
Toeman Abben
Tingmouth
Brixsport
Darmouth, Dortmuyen
Torbay
Poortlandt
Kasquettes. alte
Kisedassen
Barroches.

A

Thus ſhew

Thus ſhe

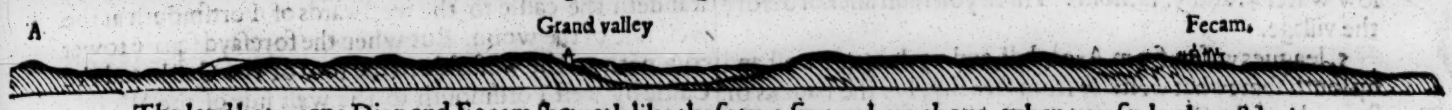
Thu

Road under Beachy.

New have

How theſe lands doe shew themſelves at Sea.

Theſe two figures belong at the AA one to the other.



The land betweene Diep and Fecam ſheweth like theſe two figures here above, when you ſayle alongſt by it, two or three leagues without the land.

The forme of Struyſaert, and Seynhead, when you ſayle alongſt by them.

Thus ſheweth the land of Cane, when you are foure leagues off from it.

Thus ſheweth the land of Sherborough, and the land to the weſtwards of it towards C. de Hague when it is ſoutheaſt 4. leagues off from you.

Thus ſheweth Ornay when you ſhall ſayle alongſt by it foure leagues from the land.

Thus ſheweth Ornay with the Caskets, when it is ſouthſoutheaſt from you 3. or 4. leagues.

Thus ſheweth Ornay and the Caskets. when you ſayle alongſt by them, and Ornay is ſoutheaſt from you 3. or 4. leagues.

Thus ſheweth Garnſey when it is thwart of you about 4. leagues.

Garnſey, being eaſtnortheaſt from you ſheweth thus.

Thus ſheweth the land betwixt S. Paul de Lion, and the Fourne, when you ſayle alongſt by it 4. leagues from the land.

The ſecond Demonſtration.

Wherein

Is deciphered the Coaſt of England from Fierley to the Lizart.

Road under Beachy.

THE poynt of the Neſſe and Beachy lye weſtſouthweſt and eaſtnortheaſt diſtant 8. leagues, Beachy is by the ſeven white Cleeves, the beſt knowne land that a man can ſee any where. To the eaſtwards of Beachy men may anckor for weſterly windes in 6. or ſeven fathom, ſo that the poynt be ſouth and ſouth and by weſt from you. To the weſtwards of the poynt of Beachy, thwart of the weſt end of the 7. Cleeves, right againſt the Chindle, where men run alongſt by into new Haven, men may alſo anckor in 7. 8. or 9. fathom.

A league and a halfe to the eaſtwards of the poynt of Beachy, neareſt e. n. e. from the poynt lyeth a little ſand, upon which there is at low water and ſpring-tydes ſcarce two fathom.

New have

At the Weſt-end of the ſeven Cleeves lyeth the River of Cuckmer-haven, or New-haven, which hath two entries, the weſtermoſt entry lyeth in by the weſt land, but is not to be uſed, but onely with very ſmall ſhipping, it falleth altogether dry; the eaſtermoſt is commonly the beſt, and lieth northweſt and by weſt in, there is at high water with a common tyde not more then ſeven, and with a ſpring-tyde, 14. or 15. foot water; within, the ſhipps lye every tyde dry: But before the village they remaine a float, there they morre with foure cables faſt on two greene ſhores. Upon theſe entries men cannot well make any reckoning, they keepe no certaine depth, when it bloweth a ſtorm out of the ſouth they are oftentimes caſt too with a chindle, and opened againe with a freſhut.

Shorum is a tyde-haven, where is at high water and ſpring-tydes 18. foot water, but at low Water there remaineth no more then 3. foot Water, ſo that then it floweth 15. foot up and downe. With a common tyde at high water there is 12 foot, and at low Water 3. foot depth. The towne Shorum lyeth a little Engliſh mile within the haven, ſhips (that draw but 8. or nine foot water) can lye afloat a little beneath the towne at low water, or elſe they lye dry every where. Shorum.

When you come from the eaſtwards from Beachy or new-Haven along by the ſhoare, you may ſee open into the Haven, before you come thwart of it: But comming from the weſtwards, you ſhall not ſee it open before you come right before it, becauſe the weſt poynt lyeth ſomewhat further out then the eaſt poynt. From the weſt poynt runneth off a little tayle, but at high water you may runne in alongſt over it, otherwiſe you muſt runne in by the eaſt ſhore. Upon the eaſt poynt ſtand two beacons, which you muſt bring one in the other, and run in ſo right with them, untill you come by the north ſhore, and then in alongſt by the foreſaid north ſhoare.

At

Arondell

At Shorum ſometimes there are builded many great ſhips of three or foure hundred tunnes.

About 8. leagues to the weſtwards of New-Haven lyeth Arondell, a tyde-Haven, where a ſhip may goe in at halfe Flood, you muſt goe in there by the weſt land Northeaſt in In the entry it is two, and betwixt the two lands three fathom deepe at high water: but within the Haven remaineth at low water 4. and 5. fathom: There you muſt anckor before the village.

Owers.

5. leagues w.ſ.w. from Arondell, and 13. leagues weſt and by ſouth ſomewhat weſterly from Beachy, lye the bancks or ſhowlds of the Owers under water, a great league and a halfe ſcaboard the land.

Eaſtborough-head.

About two leagues e. north e. ſomewhat eaſterly from the ſouth ſide of the Owers, and two little leagues ſouth from Arondell lyeth a ſhowld of rocks and chindles, called Eaſt-borough-head, as great as an acker of land, which falleth (at low water and ſpring-tyde) dry, otherwiſe it commeth not above water, cloſe to it, it is 15 fathom deep. They that ſayle off from the haven of Shorum, and are bound to the weſtwards, muſt not goe more weſterly then ſ.ſ.w. untill they come in 18. fathom, before they ſet their courſe more weſterly, for feare of this ſhowld. About an Engliſh mile n. w. from this foreſaid ſhowld, lyeth alſo a ſuncken rock, whereupon at low water is no more then 5 or 6 foot water.

About halfe wayes, betwixt Aroudell and Selſey, runneth off a ledge of Rockes thwart to the ſouthwards from the ſhore, about an Engliſh mile and a halfe into the ſea, called the Bogners, whereof ſome of the rocks fall dry at low water, but the outermoſt are alwayes under water.

The Owers.

The ſhowlds or banckes of the Owers, lye about foure leagues to the eaſtwards of Wight, and lye off a league and a halfe from the land, thwart of them ſtandeth a tower in the land, when that is northnorthweſt from you, then are you thwart of the ſouthermoſt part of the ſhowld; And if you

Culver-cliffe.

keep the Culver cliffe of Wight weſt and by north, and weſt northweſt from you, comming either from the eaſt or from the weſt, you can take no hurt of the Owers; you may run alongſt by them in twelve fathom upon your lead, without danger. If you ſayle away from the eaſt end of Wight, eaſt and by north, and eaſtnortheaſt, you ſhall runne in twelve fathom alongſt over the eaſt end of them. He that is there well acquainted, may alſo ſayle to the northwards of them, through betweene the land and the Owers.

Chicheſter.

Betwixt the Owers and Portſmouth goeth in a great ſound or haven, within lyeth the towne of Chicheſter.

At both the ſides of the Iland Wight men may ſaile within it, and there come to anckor either under S. Ellens, or before Newport where they will.

For to ſail in at the eaſt end of Wight.

For to ſayle into the Eaſtwards of Wight you muſt bring the eaſter caſtle that lyeth to the eaſtwards of Portſmouth over the Lyme-kill (that is, a white ſpot in the land to the northwards of that Caſtle) and keepe them ſo one over the other, untill that the Culver cliffe come within or under the Northeaſt poynt of Wight. Then bring the Lime-kill over the eaſt end of Portſmouth, and keepe them ſo untill that the caſtle to the weſtwards of Portſmouth come to the wood: Thus doing you ſhall not come neare neither plate nor ſand, to take any hurt of them, and you ſhall come ſo by little and little, before S. Ellens Church. When the Church come two ſhips length within the red poynt, then you ſhall not come too neare the riffe at the poynt. Or elſe if you cannot ſee the Lyme-kill, then keepe the Caſtle to the Weſtwards of the Culver cliffe, untill that S. Ellens Church come a ſhippes length without the poynt of the Iland, goe then boldly northweſt in, aud you ſhall not come too neare the riffe; And then bring the ſquare Tower betwixt the eaſt end of Portſmouth, and the Caſtle: when the caſtle to the weſtwatds of Portſmonth commeth to the eaſt ſide of the wood, then you ſhall not (as here before is ſayd) come too neare neither the plate nor the ſand to take any hurt of them.

When the eaſtermoſt white ſpot ſtandeth a ſhipps length to the weſtwards of the caſtle, then you are to the eaſtwards of the riffe; and when the Culver cliffe is covered or hidden behind the n, e. poynt of the Iland, then are you alſo within the riffe. The markes of the little plate are theſe: there ſtandeth a ſquare tower within the land, and a caſtle on the water ſide to the eaſtwards of Portſmouth, thwart from it lyeth the foreſayd Lime-kill: when that commeth to the eaſtwards of the foreſayd Caſtle, ſo that you may even ſee through betwixt them both, thenare you upon the little plate which at low water is not deeper then ten foot: then ſtandeth the caſtle to the weſtwards of Portſmouth at the weſt ſide of the wood. But when the foreſayd ſquare tower commeth to the weſt ſide to the foot of the Caſtle and the Caſtle by weſt Portſmouth to the weſt ſide of the Wood, there it is deepe at low water upon the little plate twelve foot. Marks of the plate.

When the ſquare Tower ſtandeth betwixt the eaſt end of Portſmouth, and the caſtle even betwixt the Lyme-pit and the Tower, and the caſtle by weſt Portſmouth in the weſt ſide of the wood, there it is at high water, tenne fathom deepe.

When Saint Ellens Church lyeth ſouthweſt and by weſt from you, then lyeth the ſoutheaſt end of the plate northeaſt and by north from you, and the weſt end north and by eaſt.

No mans-land.

From the poynt of the Roade of Newport eaſtwards lyeth a broad ſand alongſt the ſhoare, called No mans-land, which falleth almoſt dry at low water, it is ſo ſteepe, that halfe a cables length off from it, it is twelve fathom deepe: upon the high land of Wight thereabouts ſtand two or three milles. If you come ſo neare the ſhore, that the foreſayd milles be hidden behinde the foreſayd high land, you ſhall not miſſe to come aground againſt that foreſayd ſand but ſo long as you can ſee theſe milles, you ſhall goe cleare of it.

The Roade of the Cowes is the beſt Roade in Wight. Over againſt, betwixt that and Calſhot caſtle, lyeth a hard ſand neareſt the north ſhore, lying from thence to the weſtwards alongſt the fareway, almoſt ſo farre as thwart of Newton, called the Brambles; at low Water and ſpring-tydes it falleth almoſt dry, and then the ſea breaketh much upon it: to the northvvards of it goeth alſo a channell through, but it is not to be uſed, but with ſmall ſhipping. The Brambles.

For to ſail in at the Needles.

For to ſayle in at the weſt end of Wight, you muſt runne right in with the Needles, (they are high ſharpe Rockes as Maſtes lying at the Weſt end of Wight) bring then the innermoſt poynt of Wight, or the Caſtle that ſtandeth upon the chindle over againſt that poynt called Hus caſtle a little without, or to the northwards of the Needles, ſaile in thereupon, untill you come to the Needles, leave them then on the ſtarboard ſide of you, and run in within a cables length alongſt by them for to avoyd the bancks vvhich lye off from the chindle to the northvvards of the Needles, of the weſt end of Wight almoſt to the Needles. Betwixt the banckes called the Svvingels, and the Needles, it is not very broad, and at lovv Water 5. fathom deep. When you ſayle in here, you muſt caſt your tides vvell. The fore-flood falleth ſtrong upon the banckes. When you are then come within the Needles, then edge a little more off from the ſhoare unto Hus Caſtle that ſtandeth upon the Chindle, for to avoyd ſome Rockes which lye alongſt by the Iland under Water. Being come within the Caſtle or Chindle, there it is vvide and broad, leave tvvo third parts of the channell on the larboard ſide, and one third part on the ſtarboard ſide, ſayle ſo in until you come before the village Nevvton, & anckor there in nine or ten fathom, or elſe ſayle forth (if you vvill) about the poynt of the Covves, and anckor there before the haven of Nevvport in tenne or tvvelve fathom, there is the beſt Roade, and the beſt lying of all the Roades in Wight. The Haven or roade before Nevvport lyeth from the foreſayd Hus Caſtle upon the chindle northeaſt and by eaſt, and eaſtnortheaſt about two leagues aſunder.

Peverel poynt Sandwitch Bay.

From the Needles of Wight Weſt and by ſouth about three leagues, lyeth the poynt of S. Albons land, called Peverell poynt, from it lye off ſome little Rockes to the eaſtvvards. A little to the northvvards of that poynt is a Baye called the Bay of Sandvvitch, there is a good road for them that are bound to the Weſtvvards; If you vvill goe to ryde there comming from the Weſtvvards, you may take the

foun-

ſounding of Saint Albons land, and runne aboard the poynt in foure or five fathom at halfe flood, and you ſhall take no hurt of thoſe little rockes. Being gotten about the poynt, edge by it up to the weſtwards towards Sandwitch. A little to the northwards of Sandwitch in the Baye, lyeth a round Hommock, and thwart of it ſomewhat within the land ſtandeth a mill; bring that mill to the ſouth ſide of the round Hommock, and ſayle ſo in untill you come in foure or three fathom, and anckor there ſo deepe or ſhowld as you will, there it is good lying for ſouthweſt or ſouthſouthweſt winds.

A little league North and by Eaſt from the foreſayd poynt, right weſt from the Needles of Wight, lyeth another poynt, called Handfaſt poynt, to the northwards of it lyeth a little Towne called Studland, before it is alſo a good roade. Upon the outermoſt part of that poynt, is a hole through the land, where men may ſee through, and a little without the poynt ſtandeth a high ſteepe rocke like a Maſt, almoſt like the Needle at the weſt end of Wight. For to come to ride before Studland: you muſt ſayle about the ſecond poynt, with the hole or the ſteepe rocke, in foure or five fathom, and goe in Weſtnorthweſt towards Studland: a little to the ſouthwards of it lyeth a little valley, bring that weſtſouthweſt from you, and goe towards the ſhoare, in foure or three fathom and a halfe, there is the beſt roade, and lying there, you may ſee the foreſayd hole in the poynt.

Handfaſt poynt.

Studland.

A league to the northwards of that foreſayd poynt with the hole, lyeth the haven of Poole; for to ſayle in there, comming about the foreſaid ſecond poynt with the ſteepe rocke, you muſt goe on northweſt, or ſomewhat more northerly, and then you ſhall ſee right a head of you, a high flat hill, which ſtandeth higher than the other Land thereabouts, keepe that betwixt the two ſhoares, and run in ſo right with. If you muſt turne toe and againe, then ſpare not to uſe your lead, and runne not further over to the Weſtwards, then that the flat hill come to the Weſt Land, ſo ſoone as it beginneth (as it were) to touch it, you muſt caſt about, or elſe you ſhould be faſt aground: And after you have caſt about, runne not further over to the eaſtwards, then that the foreſayd high flat hill commeth even to the eaſt ſand-hill, which is a high, gray, and ſharp ſandhill, lying at the Eaſt ſide. If you keepe theſe foreſayd markes in this manner, you ſhall have there going in at halfe flood, water enough, there remaineth upon the ſhowldeſt at low Water, ten and eleven foote, but it floweth there no more then five foot up and downe. It floweth there twice in a tyde. A ſoutheaſt & northweſt Moone maketh there full ſea: Alſo a ſouth & by eaſt & north & by Weſt Moone once more, that cometh to paſſe by reaſon of the fore-ebbe that cometh out of Wight. When you come within the entry, go then northnortheaſt on, & keepe the beacons that ſtand on the eaſt land on the ſtarboard of you, & runne indifferent cloſe alongſt by them. The ſhoares are on both ſides ſteepe, and the channell is not wide, without the channell it is ſhowld or flat. This is Pilots water.

Poole.

Portland

From the weſt end of Wight to the point of Portland, the courſe is Weſtſouthweſt eleven leagues, but from Dunnoſe, the ſouthweſt poynt of Wight, weſt and by ſouth thirteene leagues.

If you will goe to anckor under Portland (comming from the Weſt, then come within two cables length, or a ſhot of a caſt peece about by the poynt of Portland, and being come about the ſecond poynt, edge up to the Weſtwards untill you come before the caſtle, and Anckor there in 7, 8, 9, 10, or 11. fathom, ſo that the poynt of Portland doe lye ſouth and by eaſt, and ſ.ſ.e. from you, there you ſhall lye land-lockt for a ſ. and ſ. by eaſt winde. With a ſouthweſt and a ſ.ſ.w. winde, men muſt be very mindfull of terrible rippeling of the race of Portland, which beginneth a little to the weſtwards of Portland, and endeth a little to the Weſtwards of S. Albons. The ground in that race is alſo very uneven, and ſhowld, ſometimes ſeven, otherwhiles ten, and alſo fifteen fathom deepe.

Road under Portland.

About a league to the northwards of the road of Portland lyeth a little Towne, called Waymouth, with a tyde-haven, before it men may anckor in 4. or 5. fathom.

Waymouth.

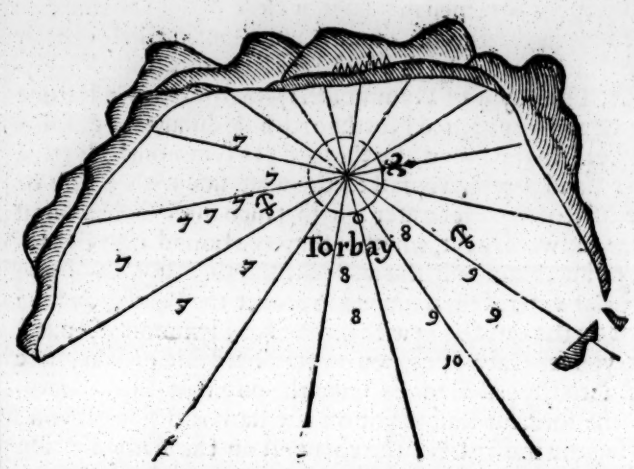
From Portland to Exmouth, the courſe is weſt northweſt thirreene leagues; betwixt them both lyeth a little Iland cloſe by the land called Cob. Before Exmouth men may ride (at the ſouth end of the Chindle, which lyeth before the haven) in ſeven or eight fathom, ſo that the rockes of Tomanſtones doe come to lye ſouth and ſouth and by eaſt from you, there it is good ground, and landlockt for a ſouth winde.

I. Cob.

Five leagues ſouth and ſouth and by weſt from Exmouth lyeth Torbay, and lyeth from Portland weſt, and weſt and by ſouth diſtant thirteene leagues.

Torbay

TORBAY.



For to goe into the roade of Torbay, you muſt bring the weſt poynt ſouth and by eaſt and ſouthſouthcaſt from you and anckor there in ſeven or eight fathom, you ſhall lye land-lockt for ſouth and ſouthweſt windes. At the north eaſt ſide of the bay is alſo a tyde-haven, before it, it is good anckor ground in foure or five fathom, according as you will lye neare or farre from the ſhoare,

Three or foure leagues ſouthwards, or to the weſtwards of Torbay, lyeth the haven of Dartmouth, which hath a narrow entry, lying in betwixt two high lands, upon each ſide of the haven ſtandeth a little caſtle, in time of warres they were wont to ſhut it over with a chaine, on the Weſt ſide ſtandeth a little Church on the high land. For to ſaile in there comming from the Steart or from the weſtwards you muſt run in alongſt by the weſter land, ſo farre to the eaſtwards untill you bring the kay of the village (that lyeth on the eaſt ſide of the haven) in the middeſt of the entry of the haven, and ſayle ſo in, keeping the middeſt of the haven betwixt the two lands, and you muſt bee very ready with the boat (if there ſhould come any foreſlaughes from off the high land) for to row in. Being come in, edge over to the weſt ſide, before the Brewhouſe, and anckor there in ten or twelve fathom, or before the village on the eaſt ſide where you pleaſe.

Dartmouth.

At the eaſt ſide of the Range lyeth a ſuncken Rock, the markes for to avoyd it are theſe. To the eaſtwards of Dartmouth is a red poynt, which below by the water is black, and in the red lieth a white ſtone, when the white ſtone commeth over the black poynt, then are you thwart of the ſuncken rock, but if you ſee the kay of the village and doe as before is ſayd, then you ſhall not come to neare that ſuncken rock to take any hurt of it.

Betwixt Dartmouth and the ſteart, neareſt to Dartmouth ſtandeth a ſpire ſteeple indifferent high and white, called Tackman, that is a very good marke to know the haven of Dartmouth by it.

The ſteart lyeth from Dartmouth ſouthweſt diſtant three leagues. Under the poynt of the Steart at the eaſt ſide is a good roade for weſterly windes, betwixt the little Church that ſtandeth upon the high land, and the poynt of the ſteart in tenne or eleven fathom, ſo that the poynt lye ſouthweſt from you.

A little to the eaſtwards of the weſtermoſt poynt of the Steart lyeth a haven, called Salkom, when you come from the weſt, it ſheweth it ſelfe open, the weſt ſide of it is ragged and the eaſt ſide goeth ſloping downe, cloſe to the Weſt poynt lyeth a rocke, or a rane of rockes, therefore you muſt

Salkom.

give it a good birth, and leave the rockes on the larboard-ſide: Further, you may ſee all breaks that can doe you hurt. Being come within the poynt, you can take no hurt of neither of both ſhoares. Upon the barre, or ſhowldeſt of the entry, remaineth at low water with a ſpring tide, not leſſe then eleven foot water, and againe within it is at leaſt three fathom deepe.

Sixe leagues to the weſtwards of the Steart lyeth the ſound of Plymmouth, at the outermoſt Eaſt poynt of the ſound lyeth a high round rock, called Meweſtone, the weſt poynt is called Ramehead, betwixt them both goeth in the ſound Plymmouth Northnortheaſt in, it is broad and deepe. A little to the northwards of Ramehead is a fayre ſand-bay, where men may anckor cloſe under the land, in nine and tenne fathom. Three leagues ſouth a little eaſterly from Ramehead, lyeth a rocke above water, called Eddyſtone. The poynt of Plymmouth lyeth from the Eddyſtone North and by eaſt, and Northnortheaſt, diſtant about foure leagues. In the ſound, by the land of Plymmouth, lyeth a little Iland, which is faſt to the weſt ſide with a riffe or rane of Rocks under water, ſo that men muſt ſayle alongſt to the eaſtwards of it, whether they bee bound into Catwater, or into Hamoaſe, the weſt harbrough. If you will goe into Catwater, then runne in betwixt the Iland, and the point on the eaſt ſide in with the land of Plymmouth, untill that you ſee Catwater open on ſtarboard ſide of you, goe then into the eaſtwards betwixt the poynt of Plymmouth, and the foreſaid Eaſt poynt on the ſtarboard ſide of you, leaving the moſt part of the channell on the ſtarboard ſide of you, untill you come within the poynt, and Anckor there right againſt that high ſteepe norther land, there is at low Water with an ordinary tyde foure and five Fathom deepe.

Plymouth Meweſtone.

Eddyſtone.

Catwater.

When you ſayle into Catwater, you muſt take heed, and give a good birth to the ſouther poynt of the entry of Catwater, for there lye off to the foreſayd poynt, a ledge of Rocks under water, neare about two cables lengths from the Land, and upon the poynt of the ledge or ſhowld, lyeth a buye, where is at halfe flood about twelve foot water. which buye you muſt leave on your ſtarboard ſide in going into Catwater, and when you have Catwater altogether open, you may run into the eaſtwards, leaving (in the entry of the harbour) two third parts of the channell on the ſtarboard ſide, as before is ſayd, becauſe the ſouth ſhoare is ſomewhat flat off, there lying a ſandy bancke. which reacheth to the ſecond poynt of the ſouth ſhoare of Catwater.

A little to the Eaſtwards of that foreſayd little Iland, lyeth a rocke under water, upon which it is at low water not deeper than two fathom. For to ſaile within the Iland, you may go into the eaſtwards, or to the weſtwards of the rock according as occaſion ſhall ſerve. If you will ſaile into Hamoaſe, to the weſtwards of the rock, then take the ſounding of the Iland in foure or five fathom at low water, and run in ſo by it, untill that the Fiſher Village (lying to the northwards a little within the land) come in the weſt ſide of the valley on the north ſhore, then are you to run through betweene the Iland & the rocke, and to the weſtwards of the rock. Within the Iland upon the land of Plymmouth, ſtandeth a wall or hedge, when as you ſee that on endling, & the chappell of the foreſaid Fiſher-village commeth to the north ſide of the Valley, and Catwater commeth open; then doe you runne over the Rocke. Betweene the iland and the maine men may anckor in twelve and thirteene fathom.

Hamoaſe.

If you bee bound into Hamoaſe, you muſt runne in betweene the Iland and the land of Plymmouth, and then in amiddeſt the channell betweene the two Lands, untill that the entry of Hamoaſe be open, runne then into the northwards, as the channell leadeth, untill you come in about the weſt point, and anckor there in ſixteen, fifteen, and twelve, or ten fathom. In the narrow it is fifteene, ſixteene, ſeventeene, and alſo twenty fathom deepe, and betweene the Iland and the maine, eight, nine, tenne, and twelve Fathom.

About halfe a cables length to the eaſtwards of the Paſſage way going into Hamoaſe, lyeth a ſuncken rock under water, called the German, about two great ſhippes lengths from the ſhoare, and at low water hath not above foure foot water upon it. And when men doe come any thing neare this foreſaid ſuncken rock going into Hamoaſe, either with the flood or the ebbe, the tyde will ſet them right upon it, if it bee calme. Therefore to avoyd it, men muſt (with calme weather) give this foreſaid ſuncken rock a good birth, untill they bring the houſes of the Fiſher Village, called the Stone-houſe, open of the eaſter poynt of the Paſſage way, and then runne in over towards the north ſhoare, untill they have hidden the Iland in the foreſayd eaſter poynt of the paſſage way, for to avoyd a ſuncken Rock that lyeth off to the eaſtwards from the North poynt of the Beach of the Weſt ſide of the paſſage way, a halfe cables length of, and then runne amids the channell into Hamoaſe. Upon this foreſaid ſuncken Rock at low water, is not above three or foure foot water.

The German than a ſuncken rock.

Suncken rock.

In the ſound of Plymmouth, not farre to the northwards of the Meweſtone, lye two or three ſuncken rockes, upon which remaine at low water not more then three or foure fathom water, the markes of them are theſe: To the eaſtwards of Plymmouth ſtandeth a Tower with a Mill, and to the Weſtwards of the foreſayd little Iland ſtandeth a Gentlemans houſe, when the little tower or turret of that houſe commeth over the poynt on the weſt ſide of the Iland, and the foreſayd Tower and Mill to the Eaſtwards of Plymmouth come one over the other, then are you upon the innermoſt ſuncken rocke or ſhowld, which is at low Water foure fathom deepe. But when the poynt of Hamoaſe commeth even without the poynt to the weſtwards of the Iland, and the foreſaid tower and mill alſo one in the other; Then are you upon the outermoſt rocke, where it is at low Water and ſpring-tyde three fathom and a halfe deepe.

Suncken rocks.

From Kamehead weſtſouthweſt five leagues, lyeth Foy; and betwixt them on the coaſt lyeth a little Iland, a little to the eaſtwards of a poynt, called Talland-poynt, thwart of Weſt-Louwe, called Louw-Iland, you may anckor there to the eaſtwards of the Iland in five or ſix fathom.

Lowiland

Foy is a broad haven, where a ſhip may go in at a half flood, at the eaſt ſide of the haven ſtandeth a little Church with a little ſteeple, and on the weſt ſide a white Church, ſomewhat greater then that upon the eaſt land, with a ſquare ſteeple at the weſt end of it.

Foy.

For to ſayle into Foy, you muſt have at leaſt a halfe flood, and runne in midſt the channell betwixt the two poynts, and being come within, then chuſe which ſide you will, but the moſt water is by the weſt land, betweene the ſtakes and the Tower that ſtandeth upon the weſt land. Being come within the Stakes (as you come in by the weſt land) then beare ſomewhat off preſently from the weſt ſhoare, almoſt into the middle of the channell, neareſt to the weſt ſhoare, untill you come before the Village that lyeth on the Weſt ſide, there is a deepe docke, where a ſhippe that draweth ſixteene foot water may lye a float at low water. In the ſayd dock may three or foure ſhippes lye.

If (when you come in by the eaſt land) you deſire to bee in the foreſayd docke or poole, then ſaile in untill you come within the ſtakes, and then edge over off from the eaſt land untill you come neareſt the weſt land, for to avoyd a Flat, which lyeth by the eaſt ſhoare alongſt the haven, and beginneth againſt the firſt houſe of the Weſt Village. If it ſhould happen, that you could not lead it in with a ſaile, then let your anckor fal without the ſtakes, and warp in with hawſers, untill you come into the foreſayd poole.

You may alſo ſayle ſo farre in, that you may ſee a wall on the weſt ſide of the haven, where lyeth a village behinde it. A ſhippes length to the ſouthwards of that wall, it is good lying by the eaſt land, being morred by foure cables, there may alſo a ſhip ride afloat that draweth ſixteene foot water. You may alſo ſayle further in alongſt by that Swach that lyeth on the weſt ſide, wherein the mill ſtandeth, but come not too neare the north poynt of the Swach, for there by it lyeth a rock under water, being paſt that you may morre your ſhip in the middeſt of the channell, there is beſt lying for ſhippes that draw much water.

Foure leagues ſouthweſt from Foy, lyeth the poynt of Dodman,

Dodman. Dodman, and two leagues to the westwards of it lyeth the Haven of Falmouth. The poynt of the Dodman is double Land with a round hill, which to the westwards goeth sloping downe somewhat towards the west end standeth a mill with a sharp tower, & some little houses upon the land, somwhat to the westwards men may see the castle of Falmouth upon a round Hommocke against the high Land. This Land is very good to know when you come from the west, or from the Lizart.

Upon the west poynt of the haven of Falmouth standeth a Castle upon the high land & in the entry neareſt the west-side, lieth a great rock above water, you may saile about it on both sides, at the inner side of the east poynt lye also some rocks off from the shoare. For to sayle in there to the eastwards, alongst by the foresayd Rocke, you must runne in within two cables lengths, alongst by the eastland, leaving the foresayd rocks on the starboard side, and the great rocke on the larboard side, and so sayle right in with the high land that lyeth on the west side within the haven. Within in the haven standeth on the Land a white Chalkye spot, also a little wood of trees, keepe them over the North poynt of the foresayd high West-Land, and sayle so right in with them, keeping them so untill you come neare them, you shall finde so at halfe flood, upon the showldest, not lesse Water then five fathom, and that betwixt the foresayd Castle upon the west poynt, and the easter Castle that standeth on the east-side, within the haven, over against it, or a little within the Castles. When you shall then come by that foresayd high west land, runne alongst by it, unto the north end of the same, and anckor there in twelve, thirteene, or fourteene fathom. You may also from thence edge over towards the eastland, and anckor there under or behinde the banck; that lyeth off from the easter Castle alongst the middle of the haven, in sixe, seven, or eight fathom: the banck falleth almost dry at low water, and is soft ground; so that the shippes sit in the oase, when they come there aground.

For to sayle into the westwards of the foresayd great rock, you must take the sounding of the west land, where the Castle standeth upon, in five or six fathom, being somewhat within the rock, runne (as before is sayd) towards the west land. To the westwards of the rock, it is in that channell six and seven fathom deepe at halfe flood, but in the channell to the eastwards of the rock, seven and eight fathom.

Foure leagues south and by west from Falmouth lyeth the east poynt of the Lizart, betwixt them both lyeth a haven called Helford, which is little used of shippes. At the south side of the haven lyeth a steepe poynt, and on the north side a low sharpe poynt. Within the haven on the south side, standeth a Gentlemans house beneath at the strand, and upon the hill standeth a tuffe of trees, you must keepe these one in the other, and runne so amiddest the channell into the entry of the haven. On the north side stand also 2. or 3. trees, these come a masts lēgth to the westwards of a little house that standeth in a white sandy bay, thereupon you may sayle in also amidst the channell; it is a short in-let, being come within, you may anckor in six or seven fathom. Upon the south side standeth also a sharpe Tower, and upon the north side a little Castle upon the steepe land.

Helford.

The Lizart hath three poynts, the northermost is called the Blacke-head, from that to the second the coaste lyeth southwest and by west, and alongst to the third about westsouthwest, or west and by south: from the second or middelmost poynt, lye to seawards some rocks a cables length, or a cables length and a halfe off, called the Staggs.

To the northwards of the northermost, or eastermost poynt of the Lizart, betwixt Helford and the foresayd poynt lye some rockes a great league off from the land, called the Mannackles, south and by east from the harbrough of Falmouth, and east northeast from the foresayd Blacke-head, whereof many of them are above water at low water, and some of them at high water remaine uncovered. Betwixt them and the shoare it is very fowle and rocky, so that men cannot run through betwixt them without great danger.

Mnacles.

He that commeth out of Falmouth, and is bound to the westwards, must not goe more southerly with an ebbe then southsoutheast, or southeast and by south according as the winde shall be, for to run cleare of these foresayd.

Of the tides and course of the streames.

In the channell of Winchelsy a south and by east moone.
At Beachy by the shoare a s.s.e. and n.n.w. moone.
In the fareway thwart of it, a south and north moone.
From Beachy to the Nesse e.n.e. and w.s.w.
At Beachy by the shoare before the seven Cleeves the flood falleth east by south, and the ebbe w. and by n.
From Wight to Beachy e. and by n. and w. and by south, Thwart of Wight, before Dunnose, a south and by east moone maketh full sea.
At S. Ellens and the Cowes a s. s.e. moone.
At Hampton at the kay, a s. and n. moone.
Within the Needles of Wight a southeast and by south moone.
Before the haven of Poole a southeast and northwest moon maketh high water: also a south and by east and by west moone.
Thwart of Portland in the channell a s. s. e. and n.n west moone.
From Portland to Wight the flood falleth east and by n. and the ebbe west and by south.
In Dartmouth and Torbay a west and by south moon maketh full sea.
Thwart of the Steart in the channell, a westnorthwest and east southeast moone.
From the Steart to Portland in the middest of the channell the flood falleth eastnortheast, and the ebbe westsouthwest.
Thwart of Dartmouth by the land, the flood falleth northeast and by north, and the ebbe southwest and by south.
Thwart of Torbay towards Exmouth in the baye the flood falleth northnortheast, and the ebbe southsouthwest.
In Plymmouth and Foy a west and by south, and east and by north moon maketh the highest water.
Thwart of Foy in the Channell an eastsoutheast moone.
A sea-board of Falmouth an east and by south, but in the haven of Falmouth an east and by north moone.
At Helford and at the Lizart, by the land, an eastsoutheast and westnorthwest moone maketh the highest water.
From the Rame-head to the Steart by the land, within the Eddy-stone, the flood falleth eastsoutheast, and the ebbe westnorthwest.
From the Dodman to Rame-head the flood falleth eastnortheast, and the ebbe westsouthwest.
From the Lizart to the Dodman northeast and southwest.
In the channell betwixt the Lizart and the Steart, thwart of Foy the Flood falleth east and by north, and the ebbe west and by south.

Of the Depths.

Betwixt Winchelsey and Piccardy in the middest of the channell it is deepe 26. and 27. fathom, upon such depth men may see Fayerley and the land of Dover.
Without Beachy thwart of the seven cleeves it is deepe 28. and 30. fathom.
In the offing thwart of Wight it is deepe 38. fathom, in such deepth men may see the land.
In the channell betwixt Portland and the Caskets it is 40 fathom deepe, when it is cleare weather men may see the land on both sides: the nearer England the showlder towards the Caskets it is deepest.
The Steart and the land of Dartmouth men may see them both in five and forty fathom.
When you have the high land of Plymmouth north from you, you may see it in fifty fathom, it is high double land, and sheweth it selfe first in two hilles. That same high double land within the land, you may see it from thwart of Foy untill you come thwart of Dartmouth.

The Dodman you may see in 42 fathom off from the Lizart to the Steart

The Lizart you may see in five and fifty fathom, there the ground is white and red shelly sand.

Courses and Distances.

From Fairlee to Beachy w.s.w. 5. leagues.
From Beachy to the Owers w. and by s. 13. leagues.
From thwart of the Owers in 12. fathom unto Dunnose the south poynt of Wight, w.s.w. 5. leagues.
From Beachy to Blackneſſe east 20. leagues.
From Beachy to Struysaert south 24. leagues.
From Beachy to the Caskets s.w. and by w, 27. leagues.
From Dunnose to the southermost poynt of Wight, unto the Needles of Wight, w. and by n. and w.n.w. 4. leagues.
From the west end, or the Needles of Wight, to the poynt of S. Albons land west 4. leagues.
From the Needles of Wight to Portland west and by south, and westsouthwest 11. leagues.
From Wight to Deepe s.e. 37. leagues.
From the east end of Wight to Struysaert s.e. somewhat southerly 29. leagues.
From Wight to the Caskets, southwest and by south 20. leagues.
From Portland to Seynhead southeast and by east 37. or 38. leagues.
From Portland to the Caskets south and by east 13. leagues.
From Portland to S. Paul de Lion southwest and by south 46. leagues.
From Portland to Ushant southwest 35. leargues.
From Portland to Exmouth westnorthwest 15. leagues.
From Torbay to Dartmouth s.w. 2. leagues.
From Dartmouth to the Steart s.w. 3. leagues.
From Portland to Torbay west somewhat southerly 13. or 14. leagues.
From Portland to Dartmouth west and by south 16. leag.
From Portland to the Steart westsouthwest westerly 18. leagues.
From the Steart to the Caskets eastsoutheast 19. leagues.
From the Steart to the Sept Isles, southand by east easterly 24. leagues.
From the Steart to S. Paul de Lion south and by west 29. leagues.
From the Steart to Ushant southwest and by west 40. leagues.
From the Steart to the Ramehead, the course is westnorthwest 8. leagues.
From Ramehead to the Iland of Lowe westsouthwest 5. leagues.
From the Ile of Low to Foy, west 2. leagues.
From Foy to the Dodman fourthwest. 4. leagues.
From the Dodman to Falmouth west and by south, and westsouthwest 4. leagues.
From Falmouth to the Lizart south and by west 4. leag.
From the Steart to the Eddy-stone west or a little more northerly 7. or 8. leagues.
From the Eddy-stone to the Ramehead north a little westerly 3. leagues.
From the Ramehead to the Dodman westsouthwest 8 leagues.
From the Dodman to the Lizart southwest 7. leagues.
From the Steart to the Lizart west and by south 20. or 21. leagues.
From the Lizart to Garnsey east and by south 37. leag.
From the Lizart to the Sept Isles, or seven Ilands the course is southeast and by east 27. leagues.
From the Lizart to Ushant south 29. leagues.
From the Lizart to C. de Finisterre southsouthwest 153. leagues.
And that course goeth about 5. leagues without the cape.
From the Lizart to Teneriffe southsouthwest 466. leagues.
From the Lizart to Tercera southwest and by west 386. leagues.

Heights.

Dunnose the southermost poynt of Wight lyeth in 50. deg. 36. min.
Portland lyeth in 50. deg. 30. min.
The Steart lyeth in 50. deg. 12. min.
or as some will hold, more northerly.
Torbay lyeth in 50. deg. 25. min.
The Lizart lyeth in 50. degrees.

How these lands doe shew themselves at Sea.

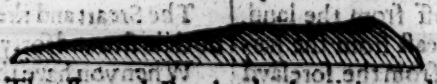
Beachy sheweth thus when you come from the West.

Thus sheweth Beachy with the seven Cleeves, when you come from the West, and sayle alongst by it.

Thus sheweth the Iland Wight, when you sayle alongst by it, being 3. or 4. leagues a seaboard the land.

Thus sheweth S. Albons land, with Portland, to the westwards of it, when you sayle alongst by it, being to the eastwards of Portland,

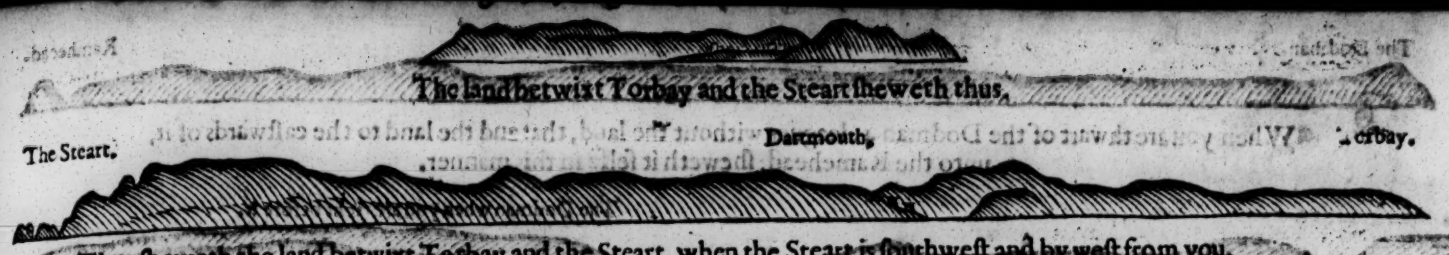
Thus sheweth Portland when you come from the westwards.



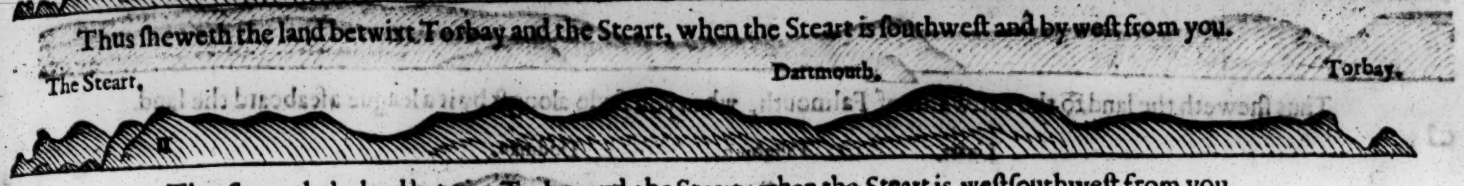
Thus sheweth Portland, when it is north and by west from you six leagues off.

Thus sheweth Portland when you come from the eastwards.

Thus sheweth the land to the westwards of Portland, when you sayle alongst by it.



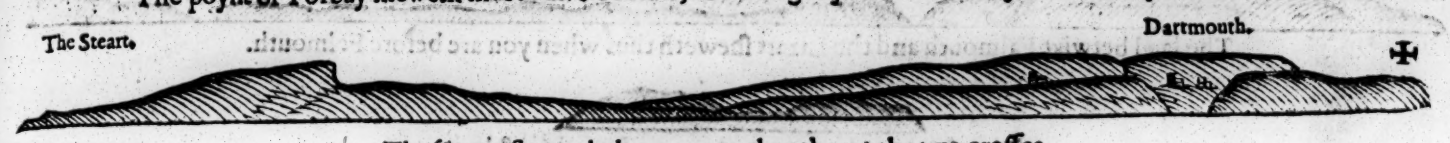
The land betwixt Torbay and the Steart sheweth thus.



Thus sheweth the land betwixt Torbay and the Steart, when the Steart is southwest and by west from you.

Thus sheweth the land betwixt Torbay and the Steart, when the Steart is westsouthwest from you.

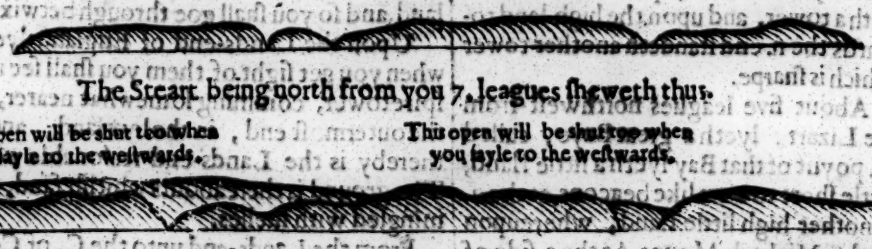
The poynt of Torbay sheweth thus in divers forms, according as you are southerly or northerly off from it.



These two figures belong one to the other at the two crosses.

Thus sheweth Dartmouth, as it is portrayed in these two figures, when you are right thwart from it a league or two from the land, with the land on both sides of it, as well towards the Steart as towards Torbay, and to the northwards of it.

Thus sheweth the Steart, being north from you 2. or 3. leagues.



The Steart being north from you 7. leagues sheweth thus.

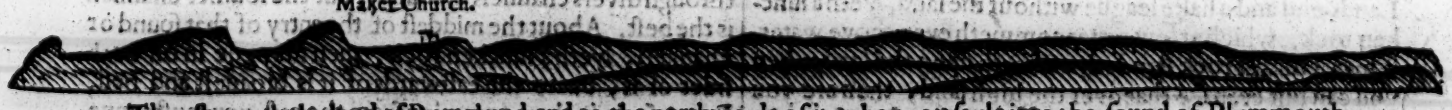
When the Steart is northeast from you, it appeareth in this forme, and then the poynt goeth flat downe.

Thus sheweth the land to the westwards of the eastermost poynt of the Steart, towards Salckom, when you sayle alongst by it.

Thus sheweth the land of the Steart, and alongst to the westwards of Plymmouth, when the Steart is northnortheast about 2. leagues, and the sound of Plymmouth northnorthwest 5. or 6. leagues from you.

The land betwixt the Steart and the sound of Plymmouth sheweth it selfe in this forme, when you sayle alongst by it.

Thus sheweth the high land to the eastwards of Plymmouth.



Thus sheweth the land of Ramehead, and to the northwards of it, when you sayle into the sound of Plymmouth.

When you are thwart of the Dodman 4. leagues without the land, that and the land to the eaſtwards of it, unto the Ramehead, ſheweth it ſelfe in this manner.

Thus ſheweth the land to the eaſtwards of Falmouth, when you ſayle alongſt by it a league aſeaboard the land.

Thus ſheweth the land betweene the Dodman and the Lizart.

The land betwixt Falmouth and the Lizart ſheweth thus when you are before Falmouth.

Thus ſheweth the Lizart when you ſayle alongſt by it.

The third Demonſtration.

Wherein

Are deliniated the Coaſts of England, from the Lizart, and Englands end, to the C. of Cornwall, the Sorlings, and the channell of Briſtow.

The Lizart

THE Lizart is a low poynt, where ſome rocks lye off from it, upon the ſ. end ſtandeth a tower, and upon the high land towards the n. end ſtandeth another tower which is ſharpe.

About five leagues northweſt from the Lizart, lyeth a great Baye, called Mounts-Bay, at the w. poynt of that Bay lyeth a little Iland, whereupon ſtand 2 little ſhort towers like beacons, at the e. ſide in the bay lyeth another high little Iland, whereupon ſtandeth a Caſtle, called S. Michaels Mount. At the e. ſide of this Baye, lyeth a great rane of rocks, which lye off into ſea a league from the land, whereof men muſt take good heed in dark weather; from thence to the ſouthward towards the Lizart, the coaſt is all alongſt full of rocks, but theſe lye not ſo farre off from the ſhore.

Mounts bay.

S. Michaels Monet.

For to ſayle into Mounts-Bay, comming from the Lands end, or from the Lizart, and being to the weſtwards of the foreſayd rane of rocks, you muſt runne in right with the little iland called S. Michaels Mount, ſo long untill you come within a halfe league of it, then edge up to the weſtwards towards the Bay, untill that you ſee that foreſayd little iland, with the two litle ſhort towers at the weſt point, leave it on the larboard ſide, and runne in cloſe alongſt to the northwards of it, for it is very cleane, but leave the caſtle a great wayes on the ſtarboard ſide, being fowle about it. Being come within the little Iland at the weſt poynt, you ſhall ſee within it a great ſandy baye, anckor there in ſeven or eight fathom. Eaſt ſ. e. and ſ. e. winds doe blow there right open in, for all other winds you lye there landlockt.

Lands end of England,

Foure leagues to the weſtwards of Mounts-Baye lyeth the Lands-end of England, and lyeth from the Lizart w. n. w. diſtant nine or ten leagues. About a league ſ. e. from the Lands-end and a halfe league without the land, lyeth a ſuncken rock, which at low water commeth even above water. Thwart of that rock ſtandeth a Church upon the land, when you can but even ſee that over the high land, then are you thwart of the foreſayd rock, to wit, even as farre from the land as the rock, but when the Church is hidden behinde the high land, that you cannot ſee it, then are you nearer to the land then the rock, or within the rock towards the land, and ſo you ſhall goe through betwixt it and the land.

Upon the Lands-end of England lye two round hilles, when you get ſight of them you ſhall ſee upon the higheſt a ſpire tower, comming ſomewhat nearer, you ſhall ſee upon the outermoſt end, in the low land, another ſpire tower, thereby is the Lands-end reaſonable well to bee knowne. The ground is thereabouts whitiſh ſand, with red ſand, and mingled with ſhelles.

From the Lands-end unto the C. of Cornewall, or to the little Iland Breſam, lyeth the coaſt moſt n. about 5. leagues.

At the Lands-end lye ſome rocks, you may runne in within them as well to the northwards as to the ſ. wards, and come to anckor in eight or nine fathom: to come in there from the ſ. wards it is narroweſt, and tenne fathom deepe: from the northwards it is beſt and broadeſt, and eight and nine fathom deepe; but on the left ſide cloſe to the north poynt of the Lands-end lyeth a ſuncken rocke, which you muſt avoyd when you ſayle in there.

Rocks at the lands end.

Silly lyeth from the Lands-end weſtſouthweſt diſtant 5. leagues, but from the Lizart w. 16. or 17. leagues.

Betweene the Lands-end and Silly lye the Seven-ſtones w. ſ. w. and w. and by ſouth foure leagues from the Lands-end, and n. e. and by eaſt, and eaſtnortheaſt, almoſt 3. leagues from Silly, that is, a rane of rocks which come not above water, but alwayes breaketh upon them.

Seven ſtones.

Southſouthweſt and ſouthweſt and by ſ. 3. or 4. leagues from the Lands-end, and 5. leagues eaſt from Silly, lyeth alſo a ſharpe rock called the Gulfe, which commeth at halfe tyde above water, and is round about indifferent cleane.

The Gulfe

Silly is divided into divers Ilands, alongſt the weſt ſide lyeth a great multitude of rocks, men may goe in there through divers channels or ſounds, but the ſouther channell is the beſt. About the middeſt of the entry of that ſound or channell, lyeth a ſuncken rock, men may goe in on both ſides of it, but to the eaſtwards of it is broadeſt and beſt. For to ſayle in there comming from the eaſt, you muſt runne alongſt by the eaſt land in eight or nine fathom, & you ſhall

For to ſail into Silly.

ſo

De Bysschop leet zyn Kl...

I. Ramsey

Bredc Bay

Scalme

I. Stocholme

Milford haven

S. Gowens

Beeds haven

Stuyert point

Padstow

S. Ives Bay

I. Bresam

C. de Cornwal

S. Ives

Whirland Bay

S. Burien

Port Curdo

Seventeen

Sorlinges

Kamuse Head

Rocks

Rocks S. Michil

Mounts Bay

Helfoort

Helston

De Wolf

Lezard

Carmar...

Helwi...

Bedford...

Duytsche

Spaansch...

Engel...

WAL-SEN GELANT

Carmarten
Aberavon
Cardief
Neuport
I. Penny
Briſtou
Kings rok
Engelſche gronden
Barrey I.
I. Silie
De Naes
Helwix
Naes Sandt
Vphilhaven
Dunſtor
Bedifford Haven
Barneſtable
Bedifford
Combemarten
Bay
Pordock

Les Coſtes Marines du Canal de Bruſtou.
A. Amſtel p. Inques Colom.

De Cuſte van Engelandt van Lezard. tot Engelants eynde. de Sorlinges. en de Canaal van Briſtou Nieulyck beſchreven by
Iacob Aertſz. Colom.

Duitſche mylen 15 voor een graadt Lieues d'Allemaigne 15 en un degre
Spaanſche mylen 17½ voor een graadt Lieues d'Eſpaigne 17½ en un degre
Engel. en Fra. mylen 20 voor een graadt Lieues Angl. et Franc. 20 en un deg.

Sorlinges

De Bysschop met zyn Klip

I. Ramsey

Brede Bay

Scaline

I. Stocholme

Milford haven

S. Gowens

Carmar

Bedford

Beeds haven

Schuyert gat

Padstow

S. Ives Baij

I. Bressam

C. da. Cornwal

S. Ives

Whirland Baij

S. Burien

Port Curdo

Seven steen

Sorlinges

Hoofden

Hoofden

Mont S. Michiel

Hilfoort

Mouts Bay

Helston

Predanner Fort

De Wolf

Lezard

Duytsche

Spaansche

Engel. en

31

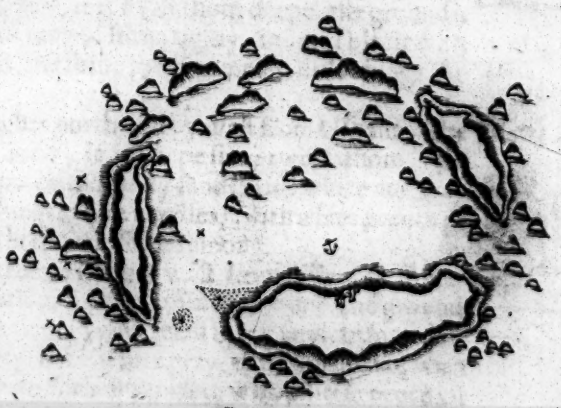
WAL-SEN GELANT

Carmarten
Aberavon
Cardiet
Newport
I. Penny
De Naes
Helwix
Naes Sandt
I. Silie
Barrey
Engelsche gronden
Kings rak
Brissou
Uphilhaven
Kundsp
Dunster
Ilfar Combe
Combemarten
Portlock Bay
Portlock
Bedisford Haven
Barnestable
Bedisford

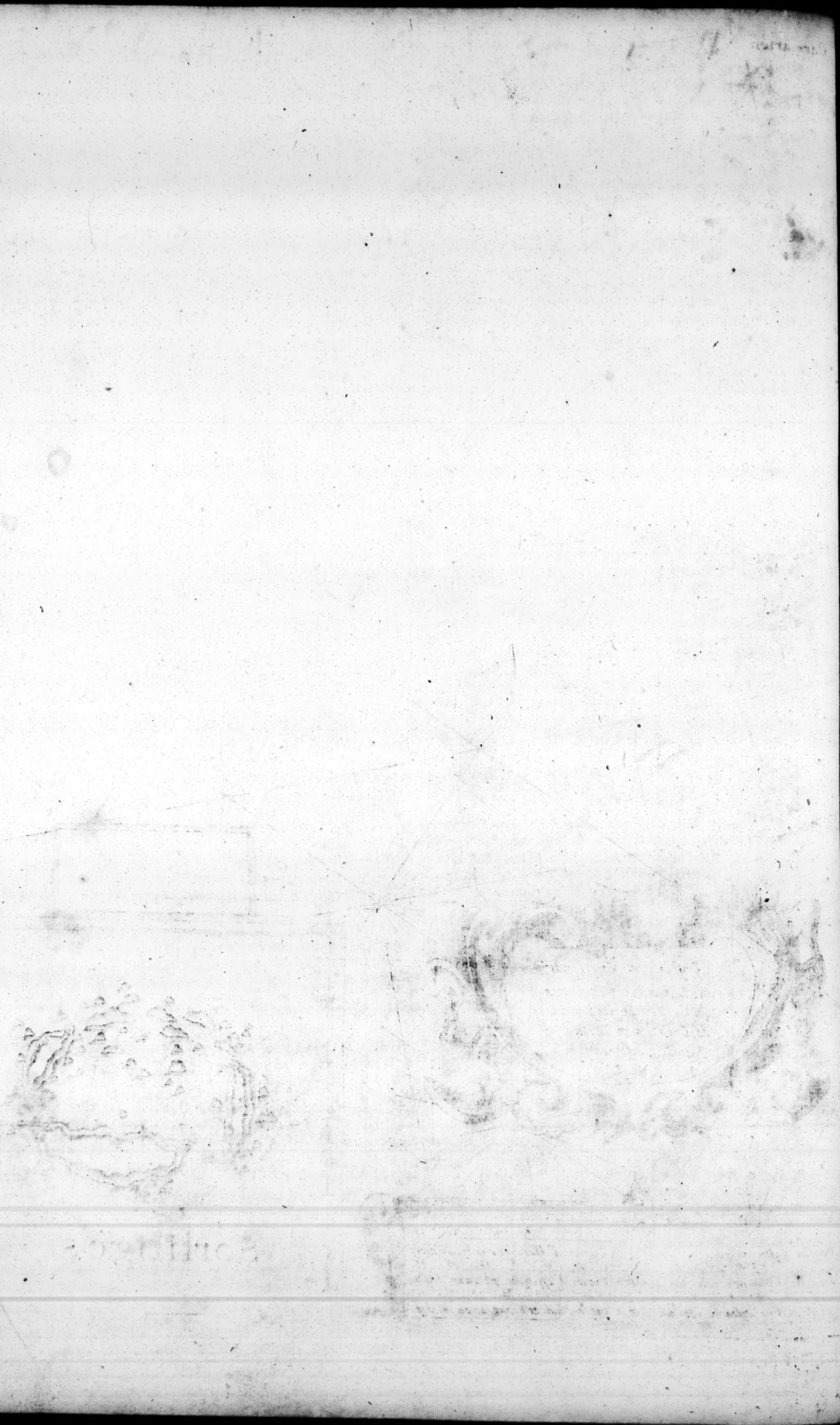
Les Costes Marines du Canal de Brustou.
A. Amstel. p. Iaques Colom.

De Custe van Engelandt van Lezard, tot Engelants eijnde. de Sorlinges. en de Canaal van Bristou Nieulijcx beschreven bij Iacob Aertsz. Colom.

Duytsche mylen 15 voor een graadt — Lieues d'Allemaigne 15 en un degre
Spaansche mylen 17½ voor een graadt — Lieues d'Espaigne 17½ en un degre
Engel. en Fra. mylen 20 voor een graadt — Lieues Angl. et Franc. 20 en un deg.



Sorlinges



so runne alongst to the eastwards of that foresayd suncken rock, which lyeth against a sconce a little without the castle. The markes to avoyd this Rock, are two rocks which lye on the west side within the haven, the one (to wit the innermost) is somewhat greater then the other. If you bring them one in the other, or the northermost a litle to the eastwards of the southermost or the smallest, so that you may even see through between them, and sail so right in, keeping them so, you shall so sayle farre enough to the eastwards of the rock. If you come from the southwards or the westwards, and are bound into Silly, then runne towards the eastland so long untill you bring the two foresaid rocks within the haven, one in the other, or even through one another, sayle then so in. and then you shall runne (as before is sayd) cleare of the foresayd suncken rock, thwart of the sconce. At the inner poynt of the Iland, at the east side of this souther channell, lyeth another suncken rock, whereof men must take heed. For to avoyd it, you must run so long to the northwards, upon the markes of the foresayd two rockes, untill you may see the little tower in the sandy Bay, then goe to the eastwards, unto the Bay, and anckor there in eight or nine fathom. When you come neare Silly upon the south side, you shall see a square tower in the sandy bay or valley, and to the westwards many little Ilands and rocks. The ground of Silly is somewhat stony with some red shels.

Of the depths and many sorts of grounds before and in the channell betweene Silly and Ushant, and thereabouts.

Seames. Southwest and by south from the Seams seven leagues it is deep 72. fathom, the ground pale, white course sand, like small fretted little stones, with little peeces of queenes shels with gray flat little stones, and white glistering needles, sayle from thence n. and n. and by east, and then you shall fall well to passe with Ushant.

About two leagues s. w. from the Seams it is deep 52. fathom, the ground there is white, yellow rough, and somewhat longish sand, with a little red small shelly sand, with many gray crompeld things, and some small with glistering poynts of needles. If men did finde there 70. or 80. fathom, they would judge it to be good channell ground.

Seames. Westsouthwest from the Seames, so farre from the land, as men may but even see the Sheets from the poop, with cleare sight, it is 54. fathom deep; the ground is red, yellow, white and black peeces, like parings of cheese, and a little course red sand mingled withall.

Seames. West and by south eight or nine leagues from the Seames in 65. fathom, the gronnd is white yellow, with a little red small shelly sand, with some peeces of shels and queens, not very great, with much white and yellow something long sand, and small white things like poynts of needles, like as men find in the channell.

Vshant. Seven leagues s. w. from Ushant, or thereabouts, that men may even see it from the poop, having cleare sight in 70. fathom, there the ground is white & yellow course sand, with some peeces of queenes shelles, and some peeces of white thin shels, with some gray flat ragged stones.

Vshant. Southwest and by w. from Ushant, about 19. or 20. leag. in 78. or 80. fathom, the ground is white and yellow course sand, with small glistering needles, with white peeces of queens shels, and gray and yellow flat stones, and little peeces, like as it were of Oyster shels.

Vshant. West and by south from Ushant 21 leagues, in 68 fathom the ground is red, yellow, and black, mingled with a little white round small sand, like shelly sand. But in 80. fathom, 21. leagues west and by south off from Ushant, the ground is yellow and shelly, with some gray and crompeld little needles, like ends of small rye.

Vshant. In eighty fathom 24. leagues from Ushant west and by south, men finde rough great sand, with many sorts of shels, red, white, yellow, and gray, with peeces of queene shells.

From Ushant west 16. or 17. leagues, in 75. fathom, the ground is white and yellow course sand, with peeces of thinne white shelles, and gray peeces of queenes shelles, like as it were of Oyster shels, white small white glistering things like needles.

Vshant. Eight or nine leagues from Ushant it is deepe 70. fathom, the ground red, white, yellow, and gray shelly sand; with red, yellow, and black peeces of shelles, and small red, yellow, black, and gray stones, with some small white things like needles.

Eight and forty leagues west and by north from Ushant, and 50. leagues westsouthwest from the Lizart, or thereabouts, it is deepe 95. fathom, the ground red, yellow, and black sand, with small white round shelly sand, and some litle peeces of shelles, and queen shels, with some peeces of thin shels.

Three and thirty leagues west and by north from Ushant and 27. leagues southwest and by south from Silly, in 95. fathom, the ground is gray, red and yellow, mingled with small black sands, with darke, red, white, and yellow peeces of shels, to wit, gray and red shelly sand. An eastnortheast course from this ground off, is the best, it is in the height of about 49. degrees.

Vshant. Foure and twenty leagues west, or west and by North from Ushant, and south and by west from Silly 21 leagues in 80. fathom, there the ground is white, gray, red and yellow fine small shelly sand, with little red and white peeces of little shels, to see to like bruised mustard seed in the height of 49. degrees.

Vshant. Seven or eight leagues west and west and by north from Ushant in 68. or 70. fathom, there the ground is white and yellow, small shelly sand, mingled with many gray crompeld little things, like needles.

Vshant. About 30 leagues somwhat more northerly from Ushant, in 90. fathom, the ground is small white rough, and somewhat long sand, mingled with a little red and yellow, and some glistering little things like needles, with two or three peeces of white gray shels. If you go on from thence northeast and by north, untill you come in 55. fathom, there the ground is yellowish, white course shelly sand, with white peeces of shels; then you may see Silly lye nine or tenne leagues north or somewhat more westerly from you.

Vshant. Lizart. Westnorthwest from Ushant 21. leagues, and southwest and by south from the Lizart 27. leagues, in 80. fathom, the ground is gray and red shelly sand, there commeth also on the lead a little peece or two of white or gray queene shells, with yellow and red peeces of shelles, also peeces of perriwinckles.

Vshant. Nine leagues northwest and by north from Ushant, the ground is white and yellow rough shelly sand, with gray crōpeld glistering little things like needles; there come also on the lead little things like small straws. If you goe on northeast from thence, you shall fall with the Steart.

Twenty leagues northwest and by north from Ushant; and 16. leagues southwest somwhat southerly from the Lizart in 68 fathom, the ground is white yellow and red small round sand, with some white glistering little things like needles, with one or two little gray crompeld things like needles, and two or three little peeces of little white shels.

Vshant. Lizart. Nineteen leagues n. n. w. from Vshant, and 12. or 13. leag. s. s. w. from the Lizart, it is 68. fathom deepe, the ground is there all manner of ragged stones, gray, red and black with red peeces of shels, and some gray crompeld little things like needles.

Vshant. Nineteene leagues north and by west from Ushant, the south from the Lizart, it is deepe sixty two fathom, the ground is white and course shelly sand, with white and gray crompeld little things, like needles, with white peeces of shels, and two or three little stones among.

Silly. Twelve or thirteene leagues west from Silly; or somewhat more northerly, it is deep sixty fathom, the ground is gray and oasie, mingled with small black sand. In some places of the same depth it is white gray, oasie small sand, with peeces of thin white shels amongst, with a little peece or 2. like parings of cheese: this ground cannot be gotten up with candle tallow, or other hard tallow upon the lead, but with soft tallow, or butter. In these depths you have no where such oasie ground as there, whereby men may well know that they are on the back side of Silly or England, to wit, west from Silly.

Silly. West from Silly 7. leagues, it is oasie gray sand with two or three little peeces like parings of cheese.

Seven or eight leagues southsouthwest from the Lizart,

in

in ſixty fathom, the ground is white groſſe with a little red ſand, with little ſhels, and little gliſtering white things like needles.

Nine or tenne leagues ſouth and by weſt from the Lizart, in 60. fathom, the ground is yellow peeces of ſhelles, and gray peeces of ſoft flat ſtones like parings of cheeſe, with ſome red peeces of ſhels, without any ſand therein.

Lizt. Silly. Southweſt and by weſt from the Lizart, and ſ. ſ. w. from Silly 19. leagues, it is deep 78. fathom, the ground gray yellow and red ſhelly ſand, with redde yellow and blew peeces of ſhels, with queene ſhels, and a peece or two like parings of cheeſe, or like peeces of Oyſter ſhels, with alſo two or three gliſtering little things like needles, in the height of about 49. degrees and 30. minutes.

Steart. Fifteene or 16. leagues ſouthweſt and by ſouth from the Steart, in 57. or 58. fathom, the ground is peeces of all maner of ſhels, and queene ſhels, with a little yellow and white ſhelly ſand, with many ſorts of little ſtones, and gray little peeces like parings of cheeſe, with ſome crompeld, and ſome not crompeld, but little gliſtering things like needles, and little things like maggots that are in bakon.

Steart. Southſouthweſt from the Steart 16. leagues, in 53. fathom, the ground is white reddiſh ſhelly ſand, with peeces of queen ſhels, with red gray little ſtones.

Southweſt from the Steart eight leagues, it is deep forty fathom, the ground gray and red ſhelly ſand.

Southſouthweſt from the Steart thirteene or fourteene leagues, it is deep 47. fathom, the ground pale muddy ſand, with little long things, and little ſtones.

A great kenning ſ. i. e. from the Steart, it is deep forty fathom, the ground red ſandy clay with pits in the tallow.

Steart. Southweſt eleven or thirteen leagues from the Steart, in 50. fathom, the ground is white and yellow ſmall ſhelley ſand, with ſome peeces of white ſhels, with gray and crompeld, and alſo gliſtering little things like needles. In fine, he that ſoundeth much, getteth many & divers ſorts of grounds and ſometimes great change in little change of diſtance of place. But he that ſoundeth and findeth white ſhels, with little things like ſtrawes and needles, it is certaine that he is neareſt to Uſhant: but if he find brandy ground, or black litle ſtones mingled with white litle things then is he neareſt to Silly.

Marks of Vshant & Silly. Hee that ſoundeth thwart of Uſhant, and findeth ſmall white ſand, and little ſhels, and ſmall little things oaſie and white. Uſhant ſhall then lye n.e. from him. If he finde long ſmal litle things like needles, then ſhall Uſhant lye ſoutheaſt from him. But if he be not ſure of theſe grounds, then hee ſhall beare to the northwards. And if he finde deeper water then he is towards the Seams, but if he finde it ſhowlder, then he is in the entring of the channell to the northwards of Uſhant. If he be between Uſhant and the Seams in 70 fathom, he ſhall finde the ground to bee ſmall little ſtones like black ſand of the earth: or elſe if he finde the ground to be great red ſand, then he muſt ſtand to the northwards, untill that he finde the white ſandy ground, and long ſmall things then hee may hold himſelfe certaine to be in the entring of the channell.

From the Lands-end of England to the C. of Cornwall, the coaſt lyeth north about 5. leagues, but Silly and the foreſaid Cape lye ſouthweſt and northeaſt diſtant about 9 leagu. By the Cape lyeth a little Iland or rock, called Breſam, be-

I. Breſam. twixt it and the Cape men may ſayle through.

S. Yves. From the Cape of Cornwall unto the little Towne Saint Yves, lyeth the coaſt about eaſt and by north, and e.n.e. five or ſix leagues. S. Yves lyeth upon the weſt poynt of a great Bay, which is about two leagues broad. At the Eaſt poynt of the Bay lyeth a little iland, there lyeth off from it a great ledge of rocks, a great halfe league thwart off into ſea, whereof many of them come at halfe ebbe above water, therefore hee that commeth off from the Cape of Cornwall, and will ſayle alongſt the coaſt towards Stoupert or Padſtow, muſt keepe off (thwart of this ledge) at leaſt a great league from the ſhoare, becauſe of the foreſaid rockes. Betwixt that foreſayd little Iland at the eaſt poynt of the Bay and the maine land, it is alſo at many places rocky and foule, ſo that one that is not there very well acquainted, may not ſayle through there without great danger. In the Bay of S. Yves is on both ſides good ſandy ground, where men may anckor all over, and come ſo neare the ſhoares as they will. At the Weſt ſide of the Bay at the Towne, is a head where ſmall ſhippes and Barkes doe goe in within it, and lye there ſuccoured for northerly windes, but great ſhips may not doe ſo, they muſt anckor without in ſix or ſeven fathom.

From S. Yves to Hartland poynt, the courſe is northeaſt 17. or 18. leagues, betwixt them both about halfe wayes lyeth the point of Stoupert, to the eaſtwards of it lyeth Pad- Stoupert. ſtow in a Bay, where is a very good road in 7, or 8. fathom. Padſtow. At the weſt ſide of that poynt lyeth a ſuncken Rock under water, and upon the poynt a great high rock, to the weſtwards of that poynt towards S. Yves, are many white ſandy and chalky bayes alongſt the ſhoare, thereby the coaſt there is very good to be knowne.

Markes of the English ground.

Hartland poynt is a poynt that lyes out, 4. leagues north Hartland from it lyeth the Iland Londey, which is ſomewhat along poynt Iland, it lyeth moſt north and by weſt, and ſouth and by eaſt. At the eaſt ſide of that Iland men may ride for Weſterly winds in 14. and 15. fathom, but on the weſt ſide the ground is foule.

Foure leagues to the eaſtwards of Hartland poynt eaſtſoutheaſt from the ſouth end of Londey, lyeth the ſound of Biddeford, being a broad haven, where many ſhippes doe Biddeford ſayle in and out. A little within the mouth of the haven, it divideth it ſelfe into two rivers, upon the weſtermoſt on the ſtarboard ſide lyeth Biddeford, and upon the eaſtermoſt on the larboard ſide lyeth a Towne called Barneſtable. Barnſtable

From the poynt to the northwards of Biddeford haven, unto Ilfercombe the courſe is e. n. e. foure leagues, that is a haven where remaineth at low water 3. or 4. fathom depth. Before the haven is alſo good road, in 8 or 9 fathom at halfe flood.

Kings road.

Eleven or 12. leagues to the eaſtwards of Ilfercombe, lye Ilfercomb two little Ilands, abont two leagues north & ſouth one from the other, called the Holmes, the northermoſt is called the Flatholm, and the ſouthermoſt the Stepholm, betwixt Il- Flatholme fercomb & the Holms (ſomewhat nearer the Holms then Il- Steep- fercomb, lyeth a little towne called Mynehead, where many holm. ſhips doe lade.

Cardief.

In the fareway betwixt Ilfercomb and the Holmes, on the Engliſh ſide; on the one ſide, and the bancks on the Welſh ſide on the other ſide, in the middeſt of the channell it is deepe 30, 25, 20, 18, 16, and 15. fathom, the nearer the Holmes the ſhowlder water. When men come from the weſtwards within the iland Londey, then they may ſee the Land on both ſides, to wit, of England and Wales. The Engliſh coaſt even from the C. of Cornwall to the Holmes is altogether cleane, but the coaſt of Wales is moſt all foule and ſhowld, from the iland Caldy unto Briſtow, with many bancks, ſands, and riffes that lye off. The Holmes and the Iland Londey lye weſtſouthweſt and eaſtnortheaſt diſtant nineteene leagues.

Silly. Barrey.

Hee that will ſayle from Londey to Briſtow, muſt run alongſt by the Engliſh coaſt, untill that hee come within the poynt of the Naes, for to avoyd Naes-ſand, and then forth alongſt through betweene the Holmes, leaving the Steepholme on ſtarboard and Flatholme on the larboard ſide. Men may alſo with little ſhips, of little draughts, ſayle about to the ſouthwards of the Steepholme, but it is there ſo ſhowld, that there remaineth at low water no more then 2. fathom water. Under Steepholm men may anckor where Road un- they will in 4. or 5. fathom. der Steep- holme.

The Naes

He that commeth off from the Naes, and is bound to Briſtow, muſt ſtand over to the Steepholme, and run alongſt to the northwards of it. It lyeth from the Naes e. ſ. e. about 7. leagues.

Naeſſand.

For to ſaile through between the Holms, the right and beſt For to ſa- fareway, you muſt ſayle neareſt the ſide of the Flatholme, through there it is deepeſt, with an open wind men may ſaile alongſt between ſo neare by it without any hurt, that they may caſt with a the Holm ſtone upon it. Within, or to the eaſtwards of the Holmes, lyeth ſhooting off from the eaſtland, a great ſhowld, lying off with a great tayle towards the weſt, which (comming from the weſt) men might eaſily ſayle within. For to avoyd it, you muſt ſet the Flatholme (when you are paſſed

Kelwix.

it)

it) ſouthweſt from you, and keep it ſtanding ſo, until that you ſhall have ſayled about a great league, looke out then for a little iland, that ſhall then at the eaſt ſhoare lye neare about thwart from you, upon it ſtandeth two mils, and above upon the maine land ſtandeth one mill. When the mill that ſtandeth upon the high land commeth to the weſt end of that foreſayd Iland, you ſhall bee paſt the foreſayd tayle of the Engliſh grounds, and cannot faile within it, goe then e. n. e. alongſt by the Engliſh grounds, which are flat, ſo that you may ſayle alongſt by them upon your lead in 3. or 4. fathom ſo neare as you will. When then the mill that ſtandeth upon the high land, commeth betweene the foreſayd two mils which ſtand upon the little iland, then ſhal you be altogether paſt the Engliſh grounds, run then boldly towards the Engliſh coaſt, and ſo cloſe alongſt by it, as you pleaſe, towards Paſſis or Portſhut poynt. From the Flatholm to Paſſis poynt in the right fareway, it is deep 14. and 15. fathom. The welſh ſide you muſt ſhun, and take very good heed of it, becauſe it is very uneven and full of ſteep bankes that are needle too, which at many places doe fall dry at low water, you may not come nearer that coaſt then in 12. fathom, for (ſayling towards it) you ſhall have at one caſt ten fathom, and before you can have the lead againe, you ſhall ſit faſt, alongſt from Flatholm till you come to Briſtow. About Paſſis poynt men do anckor in Kings road which is between the poynt and the river of Briſtow, neareſt the river there is good clay ground in 8. or 9. fathom. They that are bound into the river are brought in by the Pilots. Men may from thence alſo ſayle in alongſt by the coaſt to the River of Severne, which is alſo like the river of Briſtow, a faire river to ſaile into.

Markes of the Engliſh ground.

Kings road.

For to ſayle from Briſtow to Londey, you muſt goe away from Paſſis poynt w. ſ. w. untill that the Flatholm doe come to beare ſouthweſt from you, or elſe untill that the three foreſaid mils upon the ſouth land doe ſtand a like farre one from the other, to wit, that which ſtandeth upon the high land, doe ſtand in the middeſt betweene the other two, ſayle then right with the Flatholm, and very cloſe alongſt to the ſouthwards of it, and being paſſed it, goe then forth weſt-ſouthweſt unto the Iland Londey.

Cardief.

About 3. leagues to the northwards of Flatholm lyeth the towne Cardieff in Wales, being a tyde-haven, before it is a good road, as well for ſhippes that are bound to the weſtwards as to the eaſtwards, where men may lye landlockt almoſt for all windes, to the eaſtwards and to the northwards of it lye many ſands and bancks, which fall dry at low water, and ſo that they make men landlockt for northeaſt and eaſt winds. He that is bound into the roade before Cardieff comming from the weſt, muſt runne in betwixt Flatholm and the poynt of Cardieff, lying ſomewhat to the ſouthwards of Cardieff, and being come about the poynt, then to the northwards up alongſt by the ſhoare unto the road.

Silly. Barrey.

Cloſe unto the poynt of Cardieff, to wit, to the weſtwards of it, lye two little ilands, the one next to the poynt is called Silly, and the weſtermoſt Barrey: Betwixt Silly and Flatholme lyeth a rock, ſoutheaſt and ſoutheaſt and by eaſt from the poynt, which muſt be avoyded when you will ſayle through there unto the roade of Cardief. When it is high water you may ſayle over all that which at halfe ebbe commeth not above water.

The Naes

About five leagues weſt from the poynt of Cardieff lyeth the Naes, to the weſtwards of it the land falleth away firſt about northweſt, then afterwards ſouthweſt, or ſouthweſt and by weſt, and ſo maketh a great Baye betwixt the Naes and Wormeſhead, where there are very good roads for weſt, north, northeaſt, and eaſt winds.

Naeſſand.

From the Naes a little from the ſhoare lyeth a great bank called Naeſſand, which lyeth off from thence weſt and by South, and Weſtſouthweſt at leaſt five leagues into Sea.

Helwix.

From Wormeſhead likewiſe lyeth off a banck which is very ſteepe, called Helwix, about foure leagues ſouthſouthweſt, and ſouthweſt and by ſouth into ſea, they that come from the eaſtwards, and will goe to ride in the bay betwixt the Naes and Wormeſhead, runne alongſt cloſe by the poynt of the Naes, through betwixt the Naes and Naeſſand, likewiſe they that come from the weſtwards, and are bound in there, may run through cloſe alongſt by the poynt of Wormeſhead and the Helwix, it is betwixt them both about an Engliſh mile broad. He that commeth out of the ſea, may come in betweene the foreſayd ſands or bancks, it is there wide and broad.

VVormes head.

Wormeſhead is a poynt lying farre out, to looke to a farre off almoſt like the Oldhead in Ireland, but it is above or under, and goeth ſloping downe towards the north, it hath many white chalky ſpots, whereby it is very good to bee knowne.

Caldy.

About foure leagues to the weſtward of Wormeſhead lyeth the little Iland Caldy, whereupon ſtandeth a white Tower, ſhewing off at ſea like a white ſayle, which is ſet there for to know the land by.

VVullox.

Betwixt this iland and the poynt of Wormeſhead, the land falleth away with a great bay to the northwards, unto Carmarthen and Tinbuy, in this bay it is all over good anckor ground for to ride. On every ſide of the iland Caldy men may alſo anckor, and have ſhelter for all winds. A little to the northwards of Caldy lyeth a rane of ſuncken rockes, called the Wullox. Hee that will ſayle about to the eaſtwards of the iland, to Tinbuy, may runne cloſe about by it, up to the weſtwards, through betwixt the Iland and the ſuncken rockes, leaving them on the ſtarboard ſide, or elſe hee may runne alongſt alſo to the Eaſtwards and to the northwards of the ſuncken rockes leaving them on the larboard ſide, and ſo then alſo to Tinbuy, and anckor there before the Towne in five, or ſix fathom. To the eaſtwards and to the Northwards of the foreſayd rockes, it is alſo good anckoring in ſix, ſeven, or eight fathom, it is there all cleane ground, and farre of ſhowld water. Men may alſo ſayle through to the weſtwards of the Iland Caldy, (which is betweene the Iland and the poynt of the maine land) to Tinbuy, but it is there narrow, yet cleane, and deepe enough.

River of Carmarthen.

The River of Carmarthen lyeth from the Iland Caldy northeaſt & by north diſtant about foure leagues, the channell for to ſayle in there, lyeth in eaſtnortheaſt, on the eaſt or the ſouth ſide lyeth a great Bancke which lyeth off farre from the ſhoare, and on the off-ſide goeth off flat. For to ſayle in there men may ſound it in alongſt by the Eaſt or north ſhore, untill they be over the ſhowldeſt of the barre, there is upon it at halfe flood about fourteene foot water, and being over the barre, it will bee againe foure fathom deepe, or thereabouts, then they may run in forth alongſt by the ſouth ſhoare, by the lead, untill they come within the river.

S. Gawens poynt.

Foure or five leagues to the weſtwards of the Iland Caldy, lyeth S. Gawens poynt, the ſouth poynt of Wales, by ſome called the White poynt. About halfe an Engliſh mile ſouthſouthweſt from this poynt, lyeth a ſuncken rock called the Crow, whereof men muſt take heed.

The Crow

Milford haven.

Two leagues to the weſtwards of S. Gawens poynt lyeth the haven of Milford, a broad and wide ſound, lying in at the entry northeaſt in, being come in within the points, men may goe up to the northwards, eaſtwards, and ſouthwards, unto divers places and roads. About by the north poynt, men may ſayle unto Daleroade, there it is good lying in three fathom and three fathom and a halfe at low water. When men come a little within the ſouth poynt in the open of Milford haven, there lyeth a little Iland or rock like the Mewſtone by Plymmouth, being paſt that a little, they may run to the ſouthwards, into a bay, where they may lye landlockt for all winds.

Steckholm. Scaline.

A little to the weſtwards of Milfordhaven lye two little Ilands, the ſouthermoſt is the ſmalleſt, called Steckholm, and the northermoſt Scaline. About 2. leagues northnorthweſt or northweſt & by north from thence, lyeth the Iland Ramſey, there betwixt them hath the land a great bay, called the Broad-bay. Ramſey lyeth at the north poynt, and Scaline, at the ſouth poynt of the Bay, there in alongſt the ſhoare is good riding for north, northeaſt, eaſt, and ſoutheaſt winds, in 7, 8, and 9. fathom. Upon the North poynt of this Bay lyeth a little Towne called S. Davids, to the northwards of lyeth the Coaſt of Wales alongſt Northeaſt unto Cardigan.

Ramſey Broad.

S. Davids.

About 2. leagues weſt and by ſouth to ſeawards from the Iland Scaline, and 3. leagues ſouthwards from Ramſey, lyeth

Grasholm

that little Iland Grasholm, which is a round cleane rock, and about foure leagues off from it lye also 2. little Ilands, which

Smalls.

are foule, called the Smalls. The lying of them, with the dangers thereof, you may reade in the description of Ireland.

Bishop with his Clarks.

On the northwest side of the Iland Ramsey lyeth the Bishoppe with his Clarkes, these are rocks that lye off to the northwards and southwestwards of that Iland a good way to sea. About 5. leagues northwest or somewhat northerly

Mascus.

from Ramsey lyeth another great Rock, called Mascus, which is all round about foule, with many suncken rocks. He that commeth to saile thereabouts, or to lye by, must take very good heed of them.

The iland Ramsey, or the north poynt of Wales, and the southeast poynt of Ireland, lye about eastsoutheast and west northwest distant 16. leagues.

Of the tides and course of the streames.

In Mounts-Bay, and at the Lands-end of England, a west southwest and eastnortheast Moone maketh high water.

In Silly a southwest and by west moon maketh full Sea.

A seaboard of Silly in the Channell likewise a southwest and by west moone.

In the entring of the Channell a southwest and northeast Moone.

From Silly to the Lizart the flood falleth northeast, and the ebbe southwest.

Betwixt Silly and Londey the flood falleth northeast, and the ebbe southwest.

In Silly a Southwest and by West Moone maketh high water.

On the coast of England betwixt the Cape of Cornwall and Hartland poynt a westsouthwest, and west and by South moon maketh high water.

Thwart of the Iland Londey a west and by south, but on the Iland, and east and west moone.

At the Iland Londey, and at the Holmes, an east and west moone maketh high water.

At Bristow within, a west and by north moone maketh full sea.

At Milford haven an east and by north, and west and by south moon maketh high water.

In the channell of Bristow betwixt Londey and the Holmes the flood falleth eastnortheast and the ebbe westsouthwest.

Within the Holmes towards Bristow the flood falleth northeast and by east, and the ebbe southwest and by west.

Betwixt Londey and Milford, the streame falleth northeast, and northeast and by east.

Of the Depths:

Silly men may see on the south side in 52. fathom and the ground there is stony, with some red shels.

The Lands-end of England men may see also in 52. fathom.

Silly may be seene on the north side in 45, 46, and 48. fathom, there the ground is oasie, with some little stones amongst it.

When men are to the northwards of Silly, it sheweth first in two Ilands, upon the eastermost they shall see a tower, or little castle, to the eastwards of the two Ilands, they shall see also two great hilly rocks, and to the westwards three high black rocks.

Westnorthwest and west and by north ten or eleven leag. from Silly the ground is oasie and soft that men can scarce get any of it upon the lead, there come some little shells amonst it.

Betwixt the Lands-end of England and Londey in the fareway, it is 45. fathom deep, the land of Cornwall men may see in 44. fathom.

Three or foure leagues without the land, thwart of Saint Yves, Stoupert, or Padstow, the ground is sharpe and rocky, but nearer the land it is all sandy ground.

Betwixt S. Yves and Hartlands poynt are many white chalky hills alongst the coast, especially neare by Stoupert or Padstow, whereby this coast is to be knowne.

In the channell betwixt the Holmes and Bristow, it is deep 12, 13, and 14. fathom, and men may see the land on both sides.

Upon the coast of Wales about Milford, and to the northwards of it, men may see the land in 42. and 45. fathom.

Courses and Distances.

From the Lizart to the Lands-end westnorthwest 9. or 10. leagues.
From the Lands-end to Silly w.s.w. 8. leagues.
From the Lizart to the Gulfe the course is west and by north 10. leagues.
From the Lands-end to the Gulfe the course is southsouthwest 3. leagues.
From the Gulfe to Silly west 5. leagues.
From Silly to the Caskets east somewhat southerly 56. leag.
From Silly to Ushant the course is southeast and by south 37. leagues.
From Silly to C. de Finisterre; south and by west westerly 150. leagues.
From Silly to C. Cleare in Ireland northwest and by North 40. leagues.
From Silly to Waterford North somewhat Westerly 40. leagues.
From Silly to the C. of Cornwall northeast 9. leagues.
From the C. of Cornwall to S. Yves east and by north 7. leagues.
From S. Yves to Stoupert poynt, northeast and by east 7. leagues.
From Stoupert to Hartland poynt northeast and by North 9. leagues.
From S. Yves to Hartland poynt n.e. 18. leagues.
From Hartland point to the Iland Londey north 4. leagues.
From the C. of Cornwall to Londey northeast and northeast and by north 27. leagues.
From the C. of Cornwall to Milford in Wales northnortheast 32, or 33. leagues.
From Silly to Milford northnortheast somewhat easterly 40. leagues.
From the cape of Cornwall to the rock Tuskar north and by west 40. leagues.
From the cape of Cornwall to Waterford n. n. w. But from Silly north and by west somewhat northerly 40. leagues.
From Silly to C. Cleare in Ireland northwest and by north 40. leagues.
From the west end of Londey, to Biddeford eastsoutheast 5 leagues.
From Biddeford to Ilfercomb e. n.e. 4. leagues.
From Londey to the Holmes e. n.e. 20. leagues.
From the Steepholme to the river of Bristow northeast and by east 12. leagues.
From the Stepholme to the Naes westnorthwest about 7. leagues.
From the Naes to S. Gawens point west somewhat northerly 17. leagues.
From S. Gawens point to Milford haven northwest and by north 4. leagues.
From the Iland Scalie to Ramsey northnorthwest 2. leagu.
From Londey to Milford north and by west and north n.w 12, or 13. leagues.
From Milford to the Cape of Cornwall southsouthwest 32. leagues.
From Milford to Silly southsouthwest, and southwest and by south 40. leagues.

Heights.

The south side of Sillly lyeth in 50. degrees, or a little more.
The C. of Cornwall lyeth in 50. degr. 25. min.
Londey lyeth in 51. degr. 20. min.
The Holmes lye in 51. degr. 40. min.
Milford in 51. degr. 50. min.
The Iland Ramsey in 52. degrees.

How theſe Lands doe ſhew themſelves at ſea.

Thus ſheweth the Lizart when it is 5. or 6. leagues eaſt and by north from you.

Mounts Bay. The Lizart.

Thus ſheweth the Lizart being eaſt from you 4. or 5. leagues.

Thus ſheweth the Land betwixt the Lizart and the Lands-end, when the Lizart lyeth about eaſt and by north, and Mounts-Bay north from you.

Lands end n.n.w. Mounts Bay n.e. by n. and n.n.e.

Thus ſheweth the Lands-end, and the land to the eaſtwards of it, when it is northnorthweſt, and Mounts-Bay is northeaſt and by north, and northnortheaſt from you, being a league from the land.

The Lands-end ſheweth it ſelfe thus, when you come in right within out of the ſea.

The Lands-end being eaſt from you ſheweth thus.

Eaſt. The Lands-end of England.

Thus ſheweth the Lands-end of England when it lyeth ſoutheaſt and by ſouth ſeven or eight leagues from you, and the round Hill to the northwards of it eaſt, then you may even ſee the low land betwixt them both.

Thus ſheweth the Silly, being eaſtnortheaſt from you.

When Silly is ſoutheaſt from you, it ſheweth thus.

When Silly is eaſt 5. or 6. leagues from you, it ſheweth thus.

When Silly is ſoutheaſt and by eaſt from you, it ſheweth thus.

Silly, being ſouthweſt from you, ſheweth thus.

Thus ſheweth the land betwixt the Lands-end of England, and the C. of Cornwall, or the Iland Breſam, when you are on the back-ſide of the Lands-end.

Thus ſheweth the C. of Cornwall, when it is eaſt and by ſouth from you, ſo farre that you may but even ſee it from the poop.

Thus ſheweth the land betwixt the C. of Cornwall, and S. Yves, when it is about 4. leagues from you.

Thus ſheweth the land, when you are before or thwart of S. Yves, about five leagues without the land.

To the weſtwards of Stoupert ſheweth the land thus, when you ſaile alongſt by it 2 or 3 leagues without the land.

The land to the eaſtwards of Padſtow or Stoupert ſheweth thus when it is 2 leagues eaſt and by ſouth from you.

The land of Stoupert or Padſtow ſheweth thus, when you ſaile alongſt by it, 3 or 4 leagues without the land.

When the Iland Londey is north from you, it ſheweth thus.

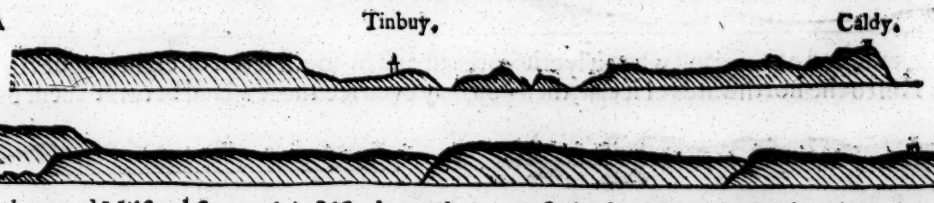
When the Iland Londey is n.n.w. from you, it ſheweth in this forme.

Thus ſheweth Ilfercoomb, when you are richt before the entry of it, cloſe by the Land.

Thus ſheweth the Coaſt of England betwixt Ilfercoomb and the Holmes.
When you ſaile alongſt by it.

Thus ſheweth the land of Wales from Cardief to Wormeſhead.

Thus ſheweth the coaſt of Wales betwixt the Iland Caldy and Milford-haven, when the northermoſt is northnortheaſt, and the ſouthermoſt is eaſtſoutheaſt from you, and that you may but even ſee it from the poope.



The land betwixt Tinbuy and Milford ſheweth it ſelfe thus, when you ſayle alongſt by the land, as it is pourtrayed in the 2. figures, at the AA belongeth one to the other: the ſpire of the tower of Tinbuy is very white.

S. Davids Bay.

The land from Milford-poynt unto the poynt of S. Davids-head, ſheweth, as is portrayed in theſe 2. figures.

From Nilford to Tinbuy, men ſayle alongſt by the coaſt, about 4. or 5. poynts, it is moſt playne land, like ſand-hils. About two leagues to the weſtwards of the poynt of Tinbuy, ſtandeth a ſpirie tower, with 2. other ſmall flat little towers more, whereby the coaſt thereabouts is good to be knowne.

The

Les Costes Marine d'Yrland entre Waterford et Rangleens

Duytsche mylen 15 voor een graadt - Lieues d'Allemag 15 ...
Spaansche mylen 17½ voor een graadt - Lieues d'Espag 17½ ...
Enge en Fra mylen 20 voor een graadt - Lieues Angl et Fra 20 ...

Duytsche mylen 15 voor een graadt Lieues d'Allem. 15 en un degre
Spaansche mylen 17½ voor een graadt Lieues d'Espai 17½ en un de
Eng en Fra. mylen 20 voor een graadt Lieue. Ing. et Fra. 20 en un d

Dit hoogh hackelige geberght machmen bij de Saltes ock bij Grenoort en voor het gat van Waterfoort sien

CATER...

WEXFORD

Rosse
Withorsh.
Clokrod
Stookstein
Waterfoordt
WATERFORD
Vytree
Chicke point
Seven Wols
Point Ballaquella ofte Rotbanck
Passage
Crook point
Dunbrody Abby
Creadnheat
Horsslip
Balihack
Duncanon
Bumbil
Houcketour ofte toorn van Waterfoort
Bannough
Alablinhaven
Balategh Casteel
Saltes
Kinnor
Kinbay
Snns
Noorderen
Blaverock
Furohin
Fundel
Rock Wilkens
Calbach
Balatrant bay
Splatz
Inskar
Nieuwe gronden
Suyd grouden
Molens
Westloot
Castel
Passage
Kilpatrik ofte Swart Casteel
Arteramman Casteel
Colomme
White Cleves
Carrickoon
Slaykanyck
Sandhoock
Ruys en Ram
Calmon Roodingsbed
Drodagh
Dundalck
Neury
Carling foort
Narrowater
Gren Castel
Mande toren
Montes vdn Carlingfoord
Dondrom
Strangfoort
Skeres
Rocabil
Lambay
De Riviere
Cammor Ile
Kasstel Killbrait
Kasstiland
Farlere
32

De Custe van Yerlandt. Tusschen Waterfoordt en Dubling. Nieulyx beschreven door Iacob A Colom.

Dubling

Klautarf

Ringsondt

Suyckerbroodt

Dalke

Bertonrede

Sondt van Dalke

Brac

Brabeck

Alizeholm

Wijngaets

Witkasteel

Vicklo

Vicklo Caphoet

Vicklo west

Horseshoe

Noord gronden

DVBLING

Lambeij

Yerlands eij

Hedeubo-al

Grombeij

Yley

Ile soule

De Custe van Yerlandt, van Lambeij, Tot verbij Ranghleens.

Schaeps eylant

Ranghleens

Faire forlandt

Castel

Schorre hoeck

Hooge hoeck

Belfast

Knocfergus

Oldstict

Sleght Landt

C. Cantyr

De Mavds

Arren

Lammelask

Lammie ile

Coplands iles

Dit waertmen heen na Dunbriton

Etzee

Lougreau

Aspel van Galwa

Ierwijn

The fourth Demonſtration.

Wherein

The Southeaſt and eaſt coaſt of Ireland is deſcribed betweene Waterford and Bandhaven or Rangleens together with the coaſtes of Scotland lying over againſt it.

FRom the Lands-end of England to Waterford, the courſe is northnorthweſt; with that courſe you ſhall fall right with Waterford. But from Silly to Waterford the courſe is north and by weſt, ſomewhat northerly forty leagues: betwixt both it is all oaſie and ſoft ground. Nine or tenne leagues in the offing from Ireland lyeth a ſandbank of forty fathom deepe, where commonly fiſhermen lye to fiſh, that is a certaine mark of the diſtance of the land, when you finde it, in cleare weather, and when there is good ſight; then you may ſee the high mountaine of Dongarvan.

The hill of Dongarvā

Betwixt Iochull and Dongarvan within in the land, lyeth that ſaid high mountaine farre above all the other land, ſhewing it ſelfe with three toppes, being called Cape de Quin, or Mary Quin. Sayling alongſt the ſouth coaſt of Ireland you may ſee it farre off at ſea; and lyeth n. w. from the haven of Waterford, therefore comming out of the ſea, and that mountain being northweſt from you, & ſayling right with it, you ſhal without fail fal right with waterford.

Waterford.

The haven of Waterford lyeth about five leagues to the weſtwards of the ſ. eaſt poynte of Ireland, being called Carnaroort, the coaſt betwixt both lyeth eaſtnortheaſt and w. ſ. weſt and ſheweth it ſelfe in the offing, within the land, with high hilles two or three double one above the other, but by the ſea ſide it is all low land, where you may ſee many flat towers upon it, as you ſayle alongſt by it. The eaſt poynte of the haven is a low rock poynte, but it is cleane, upon it ſtandeth a high white flat Tower, called the Tower of Waterford, which you may ſee farre off at ſea, and is a perfect marke to know this haven by; there ſtand divers more flatte towers to the weſtwards alongſt the coaſt, but this is better to be ſeene then all the reſt, becauſe it is white and higher then the other. The weſt poynt is a high and fowle poynt, there lyeth a ſhowld ſ.ſ.e. off into ſea, from it the channell is broad and cleane, without it, is eleven and ten fathom deepe, and in the havens mouth ſeven fathom, and ſomewhat further in ſixe fathom, it lyeth in north and north and by weſt, within this river within the eaſt poynt is a good roade in foure or five fathom, a league within the rivers mouth there lyeth on the weſt ſide a ſteepe poynte, from thence beginneth a ſhowld lying to the northwards alongſt the ſhore unto the ſteep poynt of Paſſage, and ſhooteth over from that poynt with a tayle, towards the eaſt ſhore. Paſſage is a village where men paſſe ouer, lying on the weſt ſide of the river, a little to the northwards of the foreſayd ſteepe poynt.

Tower of Waterford.

Betwixt that village, and that point on the weſt ſide a good roade very fit as well for them that are bound out, as for them that are bound up. In ſayling up you muſt take heed of a little ſhowld, that lyeth off by a caſtle (ſtanding on the eaſt ſide of the river) ſomewhat thwart over, the river downwards, at high water there is no more then two foot water upon it, a man that looketh for it, may ſee it, it is alſo flat that a man may ſound it. About halfe a league northwards up the river from Paſſage, there goeth another river weſtwards up to Waterford.

About halfe wayes betwixt the haven of Waterford and the poynt Carnaroort, lye 2. little Ilands about halfe a league frō the ſhore, called Saltees, the ſouthermoſt is the greateſt, & lyeth diſtant from the tower of Waterford, directly eaſt almoſt three leagues. Betwixt theſe two Ilands you may ſayle through in five, ſixe and ſeven fathom, but you muſt keepe neereſt the ſmalleſt or northermoſt Iland, for to avoyd ſome ſuncken rockes that lye at the north end of the great Iland, and at low water are drye.

The Saltees.

From the northermoſt or ſmalleſt Iland of the Saltees towards the mayne land, lyeth off a ledge of rockes where men were wont to goe over on foote, but now may ſayle over. For to ſayle betwixt the Saltees & the maine land, you muſt leave two thirds of the diſtance of water from the Ilands, and one third part from the mayne, and you ſhall have at low water about two fathom deepe.

About a halfe league without the ſouthermoſt Iland of the Saltees, lyeth a rock above water called Kinbegh, and ſ. w. about ſo farre from it, and ſ. and by weſt from the ſ. end of the Saltees lyeth a ſuncken rock called Kinmor, of the bigneſſe of a ſhip, it commeth with halfe ebbe even above water it is ſo ſteep that a man may lye with a ſhipps ſide againſt it, and have 14. fathom water, ſo that a man (without any danger) may ſayle alongſt by it, as neare as he will. A man may alſo (if need require) ſayle through betwixt Kinbegh and the greateſt Iland of the Saltees, but a ſeaboard of all is beſt and ſecureſt.

Kinbegh. Kinmor.

To the eaſtwards of the rock Kinbegh, ſoutheaſt from the greateſt iland of the Saltees, lye alſo ſome ſuncken rocks called the Frayles, which may be ſeen at low water, there men may alſo ſayle through within them. Northeaſt from the Saltees lye alſo two rocks, the ſouthermoſt is called the Tuns, and the northermoſt is the north rock.

The Frayls. Tuns and northrock.

Northnortheaſt from the greateſt Iland of the Saltees, or from Kinbegh, and ſ. w. and by ſ. from Carnaroort, lyeth one rock above water, called Blackrock, that is cleane and cleare round about, ſo that a man may ſayle round about it freely, without feare of danger. But a quarter of a league eaſtwards from it, lyeth a ſuncken rocke called the Barrell, of that a man muſt take heed.

Blackrock. Barrell.

Under the Ilands of both the Saltees, a man may ride, under the greateſt at the n. w. ſide neareſt the north end: the marke or knowledge of the road is, a black rock like a boat turned upſide downe, right againſt that you muſt ancker in ſeven, eight or nine fathom, there it is good ſand-ground, and landlockt for an eaſt ſoutheaſt, ſoutheaſt and a ſouth winde, a ſouthweſt winde bloweth alongſt the ſhore. If you anckor neerer the ſhore in 5. fathom or thereabouts, there it is rough groud.

Road under the Saltees.

Under the ſmalleſt Iland a man may ride at the eaſt ſide in 7. or 8. fathom, ſo that the north poynt of the Iland lye n. n. w. from you, there you ſhall lye neare the land-lockt for ſ. w. w. and n. w. windes.

From the poynt of Waterford the ſhore lyeth to the eaſtwards, within the Saltees, eaſtnortheaſt, untill Carnaroort, with many bayes, and all oaſie and black ſandy. A man being acquainted there, ſhould for need, at many places finde good roads, there is nothing that can hurt you except a little fowle place a little to the w. ward of Carnaroort cloſe by the ſhore.

He that commeth out of Waterford, and will goe about to the ſouthwards of the Saltees, muſt not goe more eaſterly then e. ſ. e. for to goe cleare of the fowle grounds, which lye to the ſouthwards of the Salrees, and when the Saltees ſhall be north of him, then lyeth the courſe from thence to the Tuskar, directly northeaſt, or a little more eaſterly. But for to goe alongſt without the Tuskar, a man muſt goe at leaſt northeaſt and by eaſt to goe cleare of him.

For to avoyd the fowle grounds of the Saltees.

The Tuskar is a great black ſmooth rock, lying like unto a ſhip turned upſide downe, but it is about twice ſo great, at the north ſide of it lye alſo two ſmall rockes under water. The Tuckar lieth from the poynt of Grenoore ſ. e. and by e. and e. ſ. e. diſtant one league: from the Saltees n. n. e. foure leagues and a halfe, from Black-rock alſo eaſtnortheaſt two leagues and a halfe, and from the Lands-end of England n. and by weſt.

Tuskar.

Southeaſt and by ſouth about ten leagues from the Tuskar, lye two little Ilands cloſe one by another, about foure

Smaels. leagues from Grasholme, called the Smaels, at high water and spring tydes the water floweth over them, the northermost is called Scakum, & the southermost is called Kamey, there lye off in the sea two little showlds from them, the one northnorthwest and the other southsoutheast. Betwixt the Smaels and Grasholme lyeth also a ledge of rocks, which at low water may bee seene above water. It is not without great danger to goe through betwixt them both. especially with calmes, by reason of the tyde that runneth very strong there through; an eastsoutheast moone maketh high water without the Smaels.

From the Tuskar east and by south about eight leagues, lyeth also a great rock, with many small rocks round about it, called Mascus. He that commeth from England and will sayle towards Ireland, must take great heed thereof, especially when as through westerly or northerly winds hee shall be driven a little to the eastwards of the course.

Mascus rock.

Road under Carnaroort. For to anckor under the poynt of Carnaroort, comming from the west, you must take heed to come no nearer the shoare then in sixe fathom, untill that you shall be passed by the high hill that lyeth to the westwards of the poynt, when you shall have brought out the mill to the eastwards the length of a capstone bar, then you may anckor in 9. fathom, there is very good riding.

From Carnaroort S. Margets bay, the shoare lyeth along northeast one league, it is betwixt both rocky and fowle, but the fowle ground lieth not farre off at sea, For to keep cleare without it, you must keepe so far off the shore that you may see tops of the double land within about the cliffe land, and you need not feare, but if you come so neare the shoare that the double land within, bee covered of the foremost cliffe land, or that thereby it get out of your sight, you shall then surely sayle upon the foresayd rocks.

By S. Margets Bay upon the foresayd land standeth a Gentlemans house in the hils, when you have brought that with the mill that standeth within, one in the other, then you may goe into the roade, and leave the rocks which lie above water half waies over the bay, either on starboard or larboard of you; anckor there in five or six fathom sandy ground.

Caliach. About s.s.e. from S. Margets Bay off at sea, lyeth a suncken rocke, that at low water lyeth dry, called Caliach, for to avoyd it, take heed unto these marks: when you come from Carnaroort, and have Black rock with the great Iland of Saltees one in the other, and keepe them so, and then sayle on northeast, you shall goe right upon this suncken rock. For to goe to the southwards of it, then keepe Black rock with the smalleſt Iland of the Saltees one in the other, or else for to goe to the northwards of it, keep Black rock without or to the eastwards of the great Iland, and then you shall not need to feare any danger of this suncken rock.

Marks for Caliach.

From S. Margets Bay to the poynt of Grenore, lyeth the coast northeast halfe a league.

Riffe of Grenore. The poynt of Grenore is not very high, but steep and flat on the toppe, off from it goeth a should about a quarter of a league into sea east and by south, of very rocks and stones, the which at low water falleth dry a good wayes off the shoare. The ships comming from the southwards that are bound for Dublin or Washford, goe in commonly betwixt the Tuskar and the foresayd rocks of Grenore, for to come within the bancks or sands. Oftentimes they goe into Waterford for to hire a Pilot to bring then them up. For him that will bee his owne Pilot, wee will describe all the markes that are to be taken heed of, as well for to sayle into Grenore, as also into the deep or haven of Washford, as they are now at this time, and hereby doe advise men that they doe not alwaies continue so, because by reason of the flouds, the channell doth shift and stretch it selfe out more northerly, and also waxeth deeper.

Comming out of the sea about a league or two neare unto Grenore, you shall see the high ragged double land high above the poynt of Grenore, which (as is aforesayd) is not very high, but flat on the top. By that sayd high ragged double land within, men doe know the entrance of the channell of Washford, when men doe come from the southwards and the eastwards. When you have sight of the poynt of Grenore, you may boldly goe right with it, untill that sayd double land, doe shew it selfe, by estimation, but a mans length above the poynt of Grenore, as sheweth the figure.

The high land over the poynt of Grenore.

The flat foreland of Grenore.

Shewld of wasford.

Then are you farre enough from the shoare, not to bee in any danger of the shewld of Grenore: or else you may fit your selfe that you come no neare the shoare than in sixe or seven fathom: but yet for need a man may borrow of the shewld in five fathom, or foure fathom and a halfe, but you must also take heed that you goe not so farre off from it, that you have more then eight or nine fathom depth, otherwise you should come too neare the bancke that lyeth to the northwards of the Tuskar, which on the inner side is very steepe and needle too, upon it is no more than 12. foot water, and close by it ten fathom deepe. If that you keepe the foresayd ragged high land (as is before sayd) a mans length above the land of Grenore, and so sayle to the northwards, so long untill you bring that same high land without or to the northwards of the steepe poynt of Grenore, then are you yet right against the shewld, and must yet sayle to the northwards, keeping the mill that standeth next unto the poynt of Grenore, so that you may see the top of it even right over the steepe poynt of Grenore. When you keepe it so, you shall not be in any danger of the shewld or riffe. Then as soone as you see a castel (which standeth a little without the strand) come without the poynt of Grenore, then may you boldly saile towards it, by your lead, into the bay of Grenore.

Greenbay.

The sayd mill stands upon the land of Grenore, a little within the land, that can serve for a marke for not to come too neare as well to the shore as also to the shewld or riffe, for if you come not so neare the shore that you leese the mill out of your sight, but keep so farre off, that you keep sight of it, then doe you keepe farre enough from the shoare, and from that rocky shewld or riffe. Then when the mill shall come to be southwest and southwest and by s. from you, then you are even passed the shewld or riffe, goe then n. w. and by west, and northwest, according as the winde and tyde shall be into the bay of Grenore.

Or else you may observe another marke: Sayle on so long north, untill that you see a long black house come out to the westwards of Grenore, upon the low land, the which sheweth like a black rock upon the land: then you may looffe on towards the shoare in foure or five fathom alongst by the riffe, and runne in so untill that you get six or seven fathom, and presently afterwards shall be eight or nine fathom deepe, but then afterwards it showlds by little and little, as you come neare the shoare.

If you have a large winde: then sayle so long to the northwards untill you see another little black house come out without the point, sayle then unto it, you shall (so doing) have no danger of the riffe.

In the Baye it is showld water, you may lye there so neare the shoare as you please, in six, five, foure, and also three fathom, and there you can get a Pilot to bring you to Washford.

For to sayle out of Greenbay.

For to sayle out of the bay of Grenore, you may runne out so close by the shoare, that you may see but the wings of the mill over the Foreland, and so goe on eastsoutheast into sea alongst by the riffe, or according as the winde and tyde shall bee, so long untill that you may see the roofe of the mill, then you may goe larger, and by little and little goe more southerly, and then you shall see it ripple upon the riffe.

For to sayle to Washford.

For to sayle out of the bay of Grenore towards Washford with a ship that draweth little water, you may boldly runne alongst by the shoare, and sayle through betwixt the Haenmans path and the Souder, that is a channell where at high water and ordinary tydes is eight foot water, but with a spring tyde is ten foot water.

The

The Haenmans paths is a dry ſand, which maketh the ſouth ſide of the channell of Waſhford, lying off from the Soudre.

The Soudre that is the ſouth poynt of the maine land of Waſhford haven.

Showld of wasford. But if your ſhip goe deeper, then you muſt ſayling out of Greenbay) goe further off from the ſhoare, for to come without the ſand that ſhooteth off from Haenmans paths, yet you muſt alſo take heed not to goe too farre there-off, for if you come ſo far off in ten fathom, you ſhall come too neare unto the banck that lyeth without, which is on the inner ſide very ſteep and needle too, therefore go no further off the ſhoare then in ſeven, eight or nine fathom, but comming ſomewhat more northerly about Haenmans paths, then you may well goe off into tenne and eleven fathom; alſo you may not come nearer in Haenmans paths then in ſeven fathom.

If you deſire to be upon the bar of Waſhford and to leave the ſhowld of Haenmans paths, to wit, to goe to the northwards, then take heed unto theſe markes: At the north ſide of the channell of Waſhford lyeth a high hill with a round hommock, which is to be ſeen over the Forelands, and a little caſtle in the low land, a little above the ſtrand, againſt the land to looke on; bring that round hommock a little to the northwards of the caſtle, and ſayle ſo in, but bring not the hommocke within or to the ſouthwards of the caſtle, for then you ſhould be in danger of the ſand of Haenmans paths unleſſe it were by need, and with a bare winde, then you might borrow ſo neare to bring them one in another, and ſo to ſaile in, but it is beſt to keepe them ſomewhat out one of another, to wit, the little caſtle to the ſouthwards of the hommock.

If it ſhould happen that you could not ſee theſe foreſayd markes well, nor diſcerne them, then you may goe about the ſand of Haenmans paths by your lead in ſeven fathom without any danger.

For to know then when you are farre enough ſayled to the weſtwards, or are paſt Haenmans path, and are open before the channell, you ſhall ſee in the ſouth land a little caſtle that ſtandeth about foure leagues in the land within the ſtrand, in the ſide of the high land of Waſhford, about *Southweſt* and by *Weſt* from you, when that ſhall bee upon that poynt from you, and that it ſtandeth betwixt the two northermoſt little ſandhills, that are upon the foot ſtrand of the Soudre (which is upon the South ſhoare) then are you paſt Haenmans paths; ſayle in then upon the markes of that little caſtle, and the ſandhills over the barre of the haven; there it is at high water about fixteene foot deepe.

As ſoone as you are paſt the outermoſt flat at the poynt of Haenmans paths, you ſhall goe ſomewhat nearer to Haenmans paths, although it bee verye ſteepe, that the tyde doth not bring you upon the tayle of the North grounds, where the maſt ſtandeth, that is a foremaſt of a ſhippe that is there loſt, and lyeth there ſuncken into the ſand, by the foremaſt the north grounds are very ſteepe and needle too, but without and within very flat going up.

In this channell and upon the Bar an eaſt and weſt moone maketh higheſt water: but the flood runneth yet afterward a half tide ſtrong by the channell to the northwards; ſo that when it is higheſt water in the channell and upon the Barre, yet runneth the tyde thwart over the channell, therefore a man muſt keepe him ſo neare to Haenmans paths, as is ſaid, that is the cauſe that the tayle of Haenmans path is caſt up ſtill more and more to the northwards, and that the channell now lyeth out more to the northwards then it was wont to doe: And yet hereafter it is like that it will ſtretch it ſelfe more to the northwards, ſo that the foreſayd markes (by the likelyhood) will not continue certaine alwayes. Even as the flood after the higheſt water, runneth yet a halfe tyde or 3. houres ſtrong (in the channel) to the northwards, ſo alſo runneth the ebbe a halfe tide lo the ſouthwards after the loweſt water, but not ſo long as the flood.

Being over the ſhowldeſt of the Barre, you ſhall have 3. three and a halfe, and foure fathom, & in the channel betwixt the north grounds and Haenmans paths againſt the maſt five fathom depth, runne in by Haenmans paths, all alongſt until you come to the foot ſtrand, and then edge over to the north ſhore, for to avoid the grounds which lye to the weſtwards above the Soudre, you may borrow of the ſhowld on the north ſide, by your lead into ten or eleven foote, according to the draught of your ſhippe. In the right deep of this edging over, you ſhall have at high water fifteene foot depth.

The marke of this edging over is a white little caſtle that ſtandeth on the north ſide of the haven in the valley of the Land, when that commeth over the ſteepe poynt of the innermoſt iland to the two that lye by the north ſhoare, and ſeemeth to bee about a mans length high, then you may boldly run in n. w. with it, untill that little chappell within the land, and to the ſouthwards of Waſhford (a little or about a cables length to the northwards of that other forenamed little caſtle on the North ſide of that high ragged Iland, that hath ſerved for a marke to ſayle over the Barre) cometh over a black hommock that you may ſee upon the high land, a little to the ſouthwards of the caſtle of Waſhford, when you ſhall have brought theſe markes one in the other, edge then over againe to the ſouth land upon the marks for then you ſhall bee above the ſands of the Soudre; and with that courſe alſo ſhall not be in danger of the taile of the ſand that ſhooteth off from the point of Paſſage, which is on the north ſide, but it is there broad and large, that a man may there turne to and againe, it is altogether ſhowld of ten and ten foot and a halfe at high water. Sailing up upon theſe foreſaid markes, you ſhall come about the diſtance of a ſhot of a caſt peece without the caſtle of Waſhford to the ſouth ſhoare ſayle then in alongſt by it, and keepe the ſounding on the ſounding of the ſhoare untill you come within the caſtle, there you may anckor, and ſhall find thereabout 3. fathom water; For a man that is there unacquainted, it is beſt to anckor there, becauſe before the towne lye ſome ſuncken rocks; he that will lye before the town, muſt (right againſt the kay, or the head of the market) goe a good wayes off the ſhore, becauſe a ſuncken rock that lyeth thereabouts, and goe right againſt the weſt end of the towne, and anckor there in 3. fathom, or thereabouts.

To the ſouthwards of the ſands, that lye to the weſtwards or above the Soudre, goeth a kreeke through, there is more wates then in the edging over to the northwards of the ſands. The marke for to ſail through there is: That you keep the higheſt hommock of the high ragged land (behind waſhford) right over the caſtle of Waſhford, but there can be nothing gotten by it, with ſailing through there, in regard you muſt nevertheleſſe goe over the ſhowldeſt, after that you are paſſed the ſands of Soudre, to wit, over the foreſaid depth of ten and eleven foot.

For to ſail out from Waſhford, with a ſhip that goeth deep, you may not lade no deeper then ten foot, or ten foot and a halfe for to come over the foreſaid ſhowld; you ſhall then ſaile about to the northwards of the ſhowld that lyeth within, or to the weſtwards of the Soudre, and goe in and anckor betwixt the ſhowld and the Soudre, there you ſhall be landlockt for all windes, except for the ſouthweſt winde you have little ſhelter, you ſhall therefore bring out your beſt anckor, in the ſouthweſt, and the other in the northeaſt, becauſe that the winds that come out of the ſouthweſt over the land, doe not put you upon the northgrounds. There at the Soudre, you may take in the reſt of your lading, it is a league from the towne.

If you wil anckor before the Barre of Waſhford for to ſtay for the tyde, you muſt anckor a little to the northwards of the Bar, and go off ſomewhat untill you have 8. fathom, there it is cleane ſandy ground.

In the night there are two fires made upon the Soudre for the Fiſhermen for to come in by night, by the Haenmans paths, he that will ſayle in by them, muſt keepe the higheſt fire a little to the ſouthwards of the other, for to avoyd the north grounds.

Beſides the deep alongſt by the Haenmans paths, the Fiſhermen have a little chanell that goeth out cloſe by the north ſhore, it is there about ſix foot deep at high water.

From

Channell through the banks before Washford

From the Barre of Waſhford a man may ſayle eaſt and by ſouth, and weſt and by north out and in through betwixt the bankes into ſea, or out of the ſea, that is a large and broad channell.

For to ſayle from the Barre of Waſhford within the ſands through towards Dublin, you muſt keepe the ſounding of the ſhoare, and runne alongſt by it in ſix, ſeven or eight fathom, you ſtall ſo ſayle alongſt about a cables length from the ſhoare, which is very cleane without any danger, ſo that any man (having but a little knowledge of the Land) may ſayle there alongſt by night, onely you muſt take heed not to goe further off the ſhoare then in ſeven or eight fathom, for not to come foule of the bankes, which are on the innerſide very ſteepe and needle too.

When you are ſayled by the northwards alongſt by the ſhoare, about two leagues from the Barre, you ſhall ſee three white ſpots or rockes in the ſandhill, a little to the Northwards thereof ſtandeth a peece of a wall, much like a pillar of a Church: Right againſt this pillar, a great Engliſh mile from the ſhore, beginneth a ſand, called the Ruſch and Ramme, lying from thence alongſt the ſhore to the northwards, you may ſayle about it on both ſides, but it is beſt to keepe the ſhoare, and to runne through there within ſix or ſeven fathom, as is ſaid out of feare of the outermoſt banks which are very ſteepe, and therefore cannot bee ſounded; Therefore men doe ſeldome uſe to ſayle there a ſeaboard of this ſand.

Right againſt this forenamed Ruſch and Ramme, the ſhoare maketh a Bay unto the poynt of Glaskarrick, when you are ſo farre as this poynt, then you are paſt the foreſayd ſand.

Poynt of Glaskarrick.

The poynt of Glaskarrick is a low poynt, a little to the northwards of it ſtandeth a caſtle.

Channell through the banks before Glaskarrick.

When you are without the bancks in the north channell, and deſire to come within the banckes, then keepe that caſtle (if you can get ſight of it) a little to the northwards of the low poynt, and runne boldly right in with it, unto the land, without feare of the grounds, there is a good channell, through the bancks; you ſhall not finde leſſe depth then fifteene or ſixteene fathom, untill you come to the ſhowlding up againſt the ſhoare. This channell lyeth in Northweſt.

For to ſayle from Glaskarrick to Dublin, run all alongſt by the ſhoare (which is ſomewhat full of Bayes) and keepe you (as before) in eight, ſeven, or ſix fathom. Two great leagues to the northwards of Glaskarrick lyeth a ſand, a great halfe Engliſh mile from the ſhoare, called the Glaskarmen, the ground is very uneven betwixt both. But nevertheles run through within that ſand & keep the ſounding of the ſhoare, but not ſo far from it, that you come into ten fathom, for then you ſhould ſayle cloſe alongſt by the Glaskarmen, which is very ſteep, and about two Engliſh miles, or a halfe Dutch mile long.

Glaskarmen.

Arkelohead.

One Engliſh mile to the Northwards of Glaskarmen lyeth the poynt of Arkelohead.

Markes for to avoyd the Glaskarmen.

Sayling through between the ſhore and Glaskarmen, to the northwards, a man may ſee 2. points, to wit, Mizanhead and to the northwards of it Wicklohead. If you keepe Wicklohead even within the poynt of Mizanhead, then you can take no hurt of the Glaskarmen. But if you would ſayle a ſeaboard of the Glaskarmen, then keepe Wicklohead a good wayes without the Mizanhead, and ſo runne alongſt a ſeaboard of it, and you can take no hurt of it: But if you keepe the poynt of Wicklohead but even without the Mizanhead, you ſhall not faile to ſaile upon the Glaskarmen.

Ledge at Arkelohead.

At the North poynt of Arkelohead lyeth a little ſtony ledge very ſteepe and needle too. A man muſt take moſt heed of it (comming from the northwards) and bound to the ſouthwards, & then muſt come no nearer in it, then in five fathom, towards the ſhore lye ſome little rockes above water: when you come from the northwards, and thoſe little rockes are weſtnorthweſt from you, then are you paſſed it, to wit, to the ſouthwards of that ledge; and then you may againe borrow of the ſhoare, upon the lead, commonly men doe keepe ſo farre off the ſhoare, that they can take no hurt of the foreſaid ledge.

Bay of Arkelo.

At the north ſide of the poynt of Arkelo is a faire Sand-bay, there is a good anckor ground, and all over good riding in 8. 7. or five fathom, in this bay are good ſtore of herrings caught.

For to ſail into the channell before Arkelo.

Right againſt Arkelo runneth alſo a channell through the bancks into the ſea. For to ſayle in there out of the ſea, looke out for a round hill within the land; bring that weſtnorthweſt, or weſt and by north off you, and ſaile then in there boldly, keeping it ſo. But if you bring the round hill weſt of you, and ſaile ſo in, you ſhall ſaile upon the point of the north grounds, it is in that channell about ſeven or eight fathom deepe.

About an Engliſh mile to the northwards of the poynt is the River of Arkelo but very ſhowld, at high water there commeth no more then ſix foot water.

The coaſt of Waſhford unto Wicklo lieth moſt north and by eaſt, a little more eaſterly: But he that will ſayle without alongſt by the banckes or ſands, muſt not goe more northerly then northnortheaſt, for to avoyd the grounds which lye about Wicklo, three leagues off from the land. And to the ſouthwards of the ſouth grounds ly ſcarce a leag. from the ſhore, there not long ſince a pilot keeping bad reckoning run without the ſands alongſt north and by eaſt, and ſailed thwart of Brkelo, behind a taile of ſand that lyeth off from the north to the ſouthwards, and there loſt his ſhippe, Arkelo lye from them (when they ſat upon the ſand) weſt and by ſouth.

Mizanhead.

About two leagues to the northwards of Arkelo lyeth Mizanhead it is a black head. Betwixt Mizanhead and Arkelo in the fareway it is eight and nine fathom deepe, it is alſo betweene them both alongſt the whole coaſt, good anckoring and cleane ground.

VVicklohead.

From Mizanhead to Wicklohead it is alſo 2. leagues, but this reach is ſhorter then the other to Arkelo.

VVolfe.

One Engliſh mile to the ſouthwards of the poynt of Wicklo, lyeth a little rock cloſe by the ſhoare, called the Wolfe, it cometh at halfe tide above water, the Fiſhers boats run through within it, but it is not to be done with ſhips.

Horſeſhoe

Right to the ſouthwards of Wicklohead ſomewhat further out then the poynt, lyeth alſo a rocky ſand, called alſo the Horſe-ſhoe, cloſe unto the poynt, about ſouth and by eaſt from it a man ſhould for need (when he cannot doe better) ſayle through there within it, but hee muſt be very well acquainted with it, or elſe not well to be done; without, it is more certaine beſt going off ſomewhat to the deepe. If you keepe the poynt of Brahead a little without Wicklohead, then you can take no hurt of it, or if you keep the high inner land, ſo that you may even ſee it above the land of Wicklo, and goe not altogether hidden behind it, then you goe there without it in 5. fathom. The point of Wicklo is ſteep and ſtony with a double top little hill, within ſtandeth a little chappell; when you can ſee that through the ſaddle of the hill, then are you right againſt it, and have it on your ſide; the village of Wicklo lyeth to the northwards of the poynt in the Bay, there is a little haven, which at high water hath ten foot water.

In the Bay the ground is ſo hard and chinnell, that the anckors doe not hold there, but without the Bay ſomewhat farre from the ſhoare, towards the Banckes, the ground is ſomewhat better.

Channell through the banks thwart of VVicklo.

Thwart of Wicklo alſo is a channell through the banckes for to ſayle that out and in, keepe the Caſtle of Wicklo, that you may ſee it open of the poynt, thereupon you may boldly ſayle out or in.

Fourteene Engliſh miles from Wicklo lyeth the poynt of Brae, a high ſteepe ſtony poynt, and the high land there about the ſea coaſt.

Betwixt Wicklo and Brae lyeth out a flat poynt with a little Fiſher Village, called Nicaſtel, there (ſayling alongſt) you have foure, five, and ſix fathom deepe, but from the flat poynt unto the ſteepe poynt of Brae, it is well fourteene fathom deepe, the land lyeth thereabout north and north and Weſt.

Sugerloaf.

Within the land lyeth a high hill, of faſhion like a Sugarloafe, that is the fartheſt in the land of the three hills, which they call the Vineyards, when you have them through one another, and are northweſt, and ſo keepe them, then may you

you boldly thereupon runne through the bancks into sea or out of the sea, upon these marks you may come in within the banckes, that is a very large and broad channell.

Thwart from that foresaid sugerloafe to the southwards of Brae lyeth a banck that is not deeper then 4. fathom, very stony and sharp ground.

Braehead is very steepe, likewise also the ground by it, is ten fathom deepe close by the shoare, to the northwards of the poynt lyeth a little tyde-haven, there stand the houses called Brae on the north side.

From Braehead to the Iland Dalke (lying at the south poynt of the Bay of Dublin) the course is North and by West foure English miles, there betwixt both goeth in a Bay.

At the Northeast side of the iland Dalke lye some rocks, lying alongst the maine not farre from it. Men sayle within the Iland through, and leave all the rocks and the iland lyeth to seawards.

The sound betwixt the iland Dalke and the maine land, is called the Sound of Dalke, it lyeth northnorthwest, and north and by west through, it is seven, eight, and nine fathom deepe, men may anckor under the Iland, nearest the land, there is good sandy ground, or somewhat further in, there lyeth a round rock, nearest to the maine land, there men may make fast a Cable on it, and an anckor thwart of the channell, towards the other rocks, because of the tydes, for the tyde runneth there very strong through. A s.s.e. and a s. and by east winde bloweth there right in, but in regard it is there very narrow, there can goe no great sea, with a south-east winde you are landlockt of the iland, and a south winde commeth off the maine land.

From the iland of Dalke, untill you are passed the village of Dalke. the shoare lyeth northwest and by West, before the village you have some succour for a Southeast winde, the winde being more easterly, you lye in the open sea. You lye there in 8. or 9. fathom, the nearer the Iland the deeper, the place is called the Berton roade; you may not anckor further to the westwards then before the village: to the westwards of the village the ground is foule and sharpe.

The north poynt of the Bay of Dubling, called Houth or Hedeho, is a very high poynt, it seemeth a farre off as if it were an iland, but it is fast to the maine land with a small and very low necke: To the northwards of it lye the Ilands Irelands-eye and Lambey, those may bee seene (being to the Southwards of the poynt Houth, and being before the entrance of Dublin) over that foresaid small necke of Land.

From the Sound of Dalke to the Barre of Dubling, the course is n.n.w. in the fareway it is deep nine, eight, seven, five, and foure fathom, the nearer the Barre the showlder water. When you sayle up, you must keepe the westermost Rocke that lyeth without at the Iland of Dalke, a handspikes length open of the iland, or the other rockes, and shall so come before the entrance, without having any let or hinderance of the sand. Or you may sayle more to the eastwards right towards the low land of the norther shoare, and then by your lead alongst by it to the Barre.

If you come from the northwards, you may runne in close about the poynt of Houth by your lead, and then all alongst by the norther shoare, untill you come to the mouth of the Barre, there alongst it is the deepest water, but towards Dalke it is showlder. From the south shoare runneth off a great tayle of sand, almost unto the north shoare. To the northwards of it goeth the deepe in. Upon that tayle a litle within the point stands a beakon of a mast, made by the Englishmen, called the Paersing.

For not to come too neare this foresayd sand, comming from the southwards, looke out for the iland Irelands-eye, keepe that so, that you may but even see it over the low land close after unto the high land of Houth, so you can take no hurt of that sand. When the Tower of Saint Patrickes in Dubling, which standeth on the land side of Dubling, commeth right over that beakon the Paersing, then are you yet right against the poynt of the sand which shooteth out a good way to the northwards of the Paersing. For to goe cleare of that, you must runne so farre to the Northwards, untill the Paersing commeth right over a little Castle with three turrets, or little towers, which standeth to the southwards of the towne, or when the Paersing commeth betwixt that foresaid little Castle, and the towne, then are you above the poynt of the sand, then goe in west and by south untill you come over the showldest of the barre, there is at spring tyde 15. or 18. foot water, but at low water and neeptyde, not more then six foot, you may sound it on both sides, When you are over the showldest of the Barre, then anckor within the sand by the beakon in Poelbegh, there it is at high water foure fathom deepe. The marke of this roade is, that you bring that afore written hill like a Sugerloafe (that here before is spoken of, and serveth for a mark for to sayle by into the Channell of Wicklo) over another lower hill, then are you in the best of the roade, bring out your best ankor in the southwest, against the blowing of the s.w. windes, which sometimes come powring downe there very strong out of the s.w. over the high land, and the other in the northeast. At low water the sands lye dry there round about the road. Road in Poelbegh

Men may also anckor somewhat further in, at the north side of the sound, right against a village called Klantarfe in a poole, where at low water remaineth nine or ten foot water: but round about the shippe (as it is in most places of the haven) it doth fall altogether dry, so that there a shipp hath but even room to wind up to and againe. Men do morre morre there southsouheast, and n.n.w. A s.e. and north w. Moone maketh there the highest water. Road by Klantarfe

If the shippes that come there bee any thing great, they must stay In Poelbegh, close before the Towne it is very showld, and falleth at low water altogether dry: with an ordinary tyde men cannot come before the towne with a shipp that draweth five foot water, but with a spring tide with ships that draw 7. or 8. foot water.

At the North side of the River, a little further out then the Towne, right over against Ringsend, lyeth a little Iland within it is a fit place to make ships cleane.

The sands or banckes that lye alongst this East Coast of Ireland from the Tuskar unto Dalke, are on the out-side, or on the east side very steepe and needle too, so that men may not come nearer them then in 24. and 25. fathom, in 20. fathom men are close by them, they are not deeper at some places then in one fathom, or one fathom and a halfe but at the North end by Dalke, about two fathom and a halfe, and three fathom deepe, all stony ground, and lye on the off side alongst n. n. e. and s. s. w. at the North end they lye about 8. English miles, but at the south end they lye but two English miles from the land. If you are bound for Dublin, and will goe without these sands, run then so farre to the Northwards, untill you can see the little Iland (Irelands-eye) without the poynt of Houth or Hedehoo, runne then right on to Houth or Hedehoo, and then you shall take no hurt of the north grounds. Marks for to saile without the bankes

The north poynt of the Baye of Dublin called Houth, is round about cleane, so that a man may anckor round about it. To the northwards of it lye the ilands of Irelands eye and Lambey. Irelands-eye is the smallest, it lyeth betwixt the aforesaid point Houth and Lambey: at the west side of it standeth a little Chappell, right against it you may ride. At the s. end lyeth of a stony riffe which must be avoyded. Right over against that Iland in the maine land lyeth a haven for small shippes, at a little towne called Malcheall. Irelands eye. Malcheel

Under Lambey you may ride upon the North side for a southerly winde, in twelve and thirteene fathom, but for a sea winde, you must shift, unto the west side by a Gentlemans house, and anckor there, but it is not very good lying there, because alwayes there commeth in a great sea. Lambey.

About five leagues n. w. and by n. from Lambey, lyeth the haven of Drodagh, betwixt them both (nearest Lambey) close by the land lye rockes, called the Skires. About two miles to the northwards of Lambey lyeth a great rocke called Rock a Bill, you may runne round about it on both the sides.

Drodagh hath a narrow crooked haven, which is not good to come into without a Pilot, or some one that is well acquainted with it. Drodagh

Foure or five leagues to the northwards thereof lieth the haven of Dondalk, which is very showld, and little used, at low water a man may goe over a foot.

North and by west about thirteen leagues from Lambey, seven leagues to the northwards of Drodag, and two leagues from Dondalk, lyeth the haven of Carlingford: the north point of that haven is somwhat foule and rocky, but you may goe in about it by your lead: the s. point is very foule with rocks and suncken rocks, which you must shun, and runne in by the northerne shoare: Some say that men may runne in through betwixt the rocks and the souther poynt with small ships, but it is not without danger. When you are within the suncken rockes, you must runne over to the souther shoare, and in alongst by it, untill you come before the town of Carlingford, and anckor there in six, seven, or eight fathom, so shallow as you will; you may sayle in upon the oase and save a shippe without anckor or Cables. Green-Castle lyeth at the northeast side of the haven, two mills from Carlingford.

Carlingford.

Greene-Castle.

About seven leagues n. e. or somewhat easterly from Carlingford, lyeth a poynt called *S.* Johns poynt: betwixt both about halfe wayes lyeth the mount of Carlingford, a high Mountaine. From Saint Johns poynt lyeth off a ledge of rocks, whereof you must take heed. A great league to the northwards of S. Johns poynt, lyeth Arglas, from thence forth to the haven of Strangford it is three small leagues.

S. Johns poynt.

Arglas

From the north poynt of the haven of Strangford, lyeth off a foule ledge of Rocks. A little off from the s. poynt lyeth a suncken rocke, which at halfe ebbe commeth above water. For to sayle into this Haven, you must leave this suncken Rocke on the larboard side, and goe to the northwards of it, but must take good heed of the foresayd ledge at the north point. A man may also goe in through to the southwards of the foresaid suncken Rocke, betwixt it and the poynt (but to the northwards of it) is the best and the broadest Channell. Somewhat further in lyeth also another suncken Rocke at the northeast side, that must bee left on the starboard side in going in. When that you come then so farre as Audleys Castle, there you may anckor or runne in about the poynt on the larboard side, and anckor there under it.

About a league and a halfe to the northwards of Strangford lye the Rockes *Southrocke* and Northrocke, of them read as followeth.

From Strangford Haven to the Northwards lyeth the coast forth n. n. e. one league unto a poynt which some doe call the point of Arglas, others the point or head of Molines; from thence falleth away the coast unto the Bay of Knockfergus northnorthwest.

Poynt of Arglas, C. de Molines.

By that foresayd poynt of Arglas or Cape of Molines, to wit, to the northwards of it, two little miles, lye two great rockes: the southermost is called the *Southrocke*, it lyeth about two miles to the Southwards of the Northermost, called the Northrocke. From the south end of the southrocke lyeth a ledge of rockes at the least two miles off, also one from the northeast poynt a great wayes northeast off into the sea. The north rocke is a great plate of rockes, whereof many at high water are under water. There goeth also from it a foule ledge off unto the land, so that a man may hardly sayle through betwixt the rocks and the maine land, except a man be extraordinary well acquainted. But betwixt the northrock and the southrock goeth a faire broad Sound through, where men may well turn to and again, and at many places may anckor, it is all over good cleane sandy ground, 6 7, and 8. fathom deep.

Southrock

Northrock

From the east side of the southrocke unto the Ilands at the east point of the bay of Knockfergus, called Koppen, or Kopland Iles, the course is Northnorthwest or somewhat more northerly, about six leagues: for when men saile from the east side of these Ilands to the southwards, with a south, e. way, they goe farre enough without the north and Southrockes. There betwixt them both lye divers more little Ilands, rockes, and suncken rockes, and showlds, for the which men must take good heed when they will come near by the shore.

Coplands Iles.

The Koplands Iles lye about an English mile from the land, they are on the off side to seawards, cleane, but from the inner side there goeth off some ledges and foule ground, in the mid-way there going through it is five and six fathom deepe, but it is best to goe without, except for them that are well acquainted. The n. point of the Bay of Knockfergus, lyeth distant from the Copland Iles 3. or 4. leagues n. w. or somewhat northerly, for with a s. e. course from the n. point towards the foresaid Ilands, that goeth farre enough without them.

The Bay of Knockfergus is a great broad Sound; About 3. leagues inwards in the Bay west from Copland Iles, is the road before Knockfergus, there is good anckor ground in 3. fathom and a halfe. Somewhat more further out towards the n. poynt also on the n. side of the bay, standeth a Castle, called Mouse-hils Castle, by it is a sandy bay, where is good anckoring as well for great ships as small, for the n. and the n. w. winds, but a southwest winde maketh a bad road in these places.

Bay of Knockfergus.

A little to the northwards of the North poynt of the bay of Knockfergus, lyeth a little Iland called Kow, from thence lyeth the Coast of Ireland forth Northnorthwest about nine or ten leagues unto the Ilands of Raghleens. Betwixt them both lye the nine Maydes one great league without the land, and two great leagues to the Northwards of the Bay of Knockfergus, they are great Rockes, that lye but little above water, or low rocky little Ilands, and a multitude of rockes under water about them, that lye off so far to the northnortheast, that men cannot come neare them within five or six English miles. There goe some Creekes through the foule grounds, where men (for need) might sayle through, but it is no wisedome to goe about it, when there is no need, and that men can doe better. Not very long since, there came a man (by night unacquainted) therein, and ranne through onely upon the sight of the breaches of the water, and got through without any hurt, but not without great feare and danger. Hee that commeth off from the faire Forland, must (at least) goe Southeast and by east, for to runne alongst cleare of these foule grounds. From the West side also lyeth off a little tayle of a ledge of Rockes, towards the land. Further, it is there cleane, that men may sayle through there within, but men must not come nearer the Maydes, then about halfe channell betwixt them and the mayne, but the maine land so neare as they will, which is both cleane and cleare, with many Bayes, where men may every where anckor, yet here and there lye some Rockes, but they are all above water: There is nothing that can hurt you, but men may easily see it.

Kow Iland.

The Maides

A great league to the northwards of the North poynt of the bay of Knockfergus, and a halfe league southsouthwest from the Mayds, lyeth a haven called Old-fliet. For to know it when men come from the Northwards, they shall see two flat little Towers, the one somewhat higher then the other, like as if men saw a ship with maine saile and foresayle, without toppe or toppe-sayles: these stand upon the north side of the Bay.

Oldfliet

At the south poynt lyeth a small round little iland or rock called the Knee, a speciall marke for to know this Bay; Men run in there amiddes the channell. But when you come from the southwards, and get sight of the little Iland Knee, then run in close about it.

Iland knee

From Old-fliet to the northwards unto faire Forland, the coast is very cleane, that you may sayle close alongst by it, boldly without any feare, except you runne farre off from land, without the foresaid Maydes towards the *Scottish* coast.

Fayre Hid, or Faire Forland is the outermost northeast poynt of the maine land of Ireland, and lyeth a little to the southwards of the Iland Rachleens, so that this poynt and the east poynt of Rachleens lye neare about south and north one from the other.

Faire Forland.

At Rachleens, or Fayre Forland the northeast poynt of Ireland, come Scotland and Ireland nearest one to another. The Rachleens is an iland that men may sayle round about, either to the Northwards, or to the *Southwards*, as they will, according as it happeneth best convenient with winde and tide. At the southwest side is a fayre bay, where is good lying almost for all winds. When men come from the West

it

it ſeemeth to the ſouthwards of the Rachleens to bee cloſe without any opening, becauſe the eaſtermoſt point of Jreland Faire Forland, lyeth ſomwhat further out, behinde the Rachleens, but when they come neerer betwixt them, ſheweth it ſelfe open by little and little. On both ſides are the ſhores flat and cleane, ſo that men may ankor there where you will, either by the coaſt of the maine land of Ireland, in 8 or 9 fathom, or in the bay under the iland in cleane ſandy ground. Over againſt the rachleens, cloſe by the maine land, lyeth another little high iland, called, the Lambs or Sheeps Iland, to the ſouthwardes of it betwixt it and the main, men may not ſaile there about it, but betwixt it and the iland Rachleens it is broad enough.

Lombes Iland.

From the Rachleens unto the Skires Portruſh, the courſe is weſtſouthweſt diſtant 7 leagues. About two leagues to the eaſtwards of it, in the maine land, lyeth Porto Belletrie, a bad roade for great ſhipps, the ground is there fowle and ſharpe.

Betwixt Porto Belletrie and Skires Portruſh, neereſt unto Skires Portruſh, lye the Chickens, theſe are ſuncken rockes, which may be ſailed about on both ſides, for to come to anckor und Skires Portruſh.

Chickens

The Skires Portruſh is a rock iland, it hath on the ſouth ſide a faire bay, where you may lye in ſixe and ſeven fathom, cleane ſandy ground land-lockt for all winds, except for the eaſtnortheaſt winde, which beloweth alongſt the ſhoare there open in. For to come under this Iland from the eaſt you muſt goe cloſe alongſt by the ſhore of the maine land, for to ſhun theſe foreſayd ſuncken rockes the Chickens. Jt is there all over cleane and cleare: or els if you were minded to goe without, or to the ſouthwards of the Chickens, for to come under the Iland, you muſt ſhun the Eaſt point of the iland, becauſe of a ſuncken rocke that lyeth a little off from the eaſt point of the iland. At the northweſt ſide of this bay is alſo a ſmall narrow channell, where you may ſaile through.

Skires Portruſh.

A little to the weſtwardes of Skires Portruſh lyeth the Banthaven, there alongſt you may ſayle up unto the new towne Colran, it is a bad channell to come in, as well by reaſon of the ſtrong freſhut that commeth out, as alſo becauſe it is very ſhowld: with ſhipps that draw eight foote water, you muſt have at leaſt 3 quarters of the flood before you can goe in.

Banthaven

The Coaſt of Scotland.

The haven or ſound of Lougrhean or Lookreen in Scotland by the poynt of Galloway, lyeth diſtant from Faire Forland the northeaſt point of Ireland, eaſtſoutheaſt about thirteene leagues, but the point called Cantir, lyeth diſtant from Loockreen northweſt & ſoutheaſt 9 leagues, there betwixt them both goeth up a great broad ſound northeaſt in, called Dunbritain Firth, through which men ſaile up unto Glaskow in Schotland,

Lough-grean.

Dunbrittaine Firth

The ſound of Lookreen you may ſayle in, and a good wayes you may turn in to and againe for to anckor there within for weſterly winde, if you doe come ne neerer the ſhores on either ſide then in foure fathom, you can take no hurt: you may anckor ſomewhat in, by the ſecond high point on the eaſt ſhore in ten or 12 fathom.

About ſeven leagues to the northwards of the point of Galloway in the foreſaid great ſound, lyeth a high ſharpe Jland, cleane round about, offaſhion almoſt like unto a pook of Hay, called Ailza, or Elzee, there you may boldly layle round about it, it is there round about it, and cloſe by it, eighteen fathom deepe.

Elze Jland.

From Elzee northwards ſixe leagues lyeth alſo another little Iland, cloſe by the eaſt ſide of the great iland Arren, called Lamblaſh, or Lam Ile, cleane alſo round about, there you may ſaile round about it, and ankor under it for all windes in ten, twelve, or thirteen fathom, to wit, within it, betwixt the iland and the great iland of Arren.

Lam me-Jle.

North and by eaſt and northnortheaſt two great leagues from Lamme Ile; lyeth an iland by the poynt of the maine land calleth Commer Ile; on the eaſt ſide of it betwixt the iland and the maine land, you may ſayle through in to a faire bay, where men are land-lockt for all winds, and from thence may ſaile forth unto Dunbrittaine; or into the river Glaskow, The foreſaid iland Commer-Ile lyeth from the iland Elzee, about north and by eaſt. For knowledge of this iland, when men come of from Elze, or from the ſouthwardes towardes this iland, men ſhal ſee a great caſtle on the eaſt ſide of the maine about a great league to the ſouthwards of Commer Jle, and alſo a little caſtle, a good wayes to the northwardes, cloſe upon the water ſide, that ſtandeth right to the ſouthwardes of the iland Commer-Jle, or the ſound that lyeth there into the eaſtwards of it; upon the ſame iland ſtandeth alſo a little caſtle cloſe to the water ſide. Runne in betwixt the iland and the maine land, about northnortheaſt in, and leaue the iland a great cables length on the larbord ſide, and the main land on the ſtarbord ſide you muſt ſhun more, becauſe of a great ledge that lyeth of from it towardes the iland, and ſomewhat more northerly. Having gotten cleare of the end of this ledge runne then right towards the maine land into the bay, or ſound, and anckor there in ten fathom, right againſt a ſtone houſe with an orehard thereby, it ſhal be then a ſtearne your ſhip about ſeven fathom deepe, and there morre your ſhip well.

Commer-Ile.

Bay of Commer-Jle.

To ſaile fro Commer Ile to Claskow

For to ſaile out of the Sound of Commer-Ile, towardes Glaskow, goe firſt northweſt and by north unto by the point of the iland, that is, to the weſtwards of you, and then north, alongſt by it, then by little and little more eaſterly, at length northeaſt, runne ſo all alongſt by the eaſterland; without leaving of it, you ſhall not faile to come to the Sound of Glaskow. Coming by the point runne cloſe about by it firſt eaſtnortheaſt, eaſt, and eaſt and by ſouth, at leaſt eaſt ſoutheaſt, all alongſt by the ſouther ſhore, you ſhal then ſee a caſtle ſomewhat a head upon the ſouther land, cloſe upon the water ſide, with two tuffes of trees upon the high land right eaſtſoutheaſt from the caſtle; keepe that foreſayd caſtle betweene the Tuffes of trees, and ſaile in thereupon, ſo ſhall you run right, alongſt the deepeſt of the Creeke, there is at high water fiue fathom, and at low water three fathom. From the north ſhore lyeth off a great ſhowld, which lyeth over the Sound more then two third parts from the norther ſhore; towards the ſouth ſhore it falleth dry at the loweſt water, therefore men muſt ſhun the norther ſhore, & runne alongſt by the ſouther ſhore. There ſtandeth a white caſtle upon the ſouth ſhore, right againſt that begin the foreſayd ſands, Jn the creek it is ſoft ground; but towards the ſand the ground is hard, therefore when you feele by your lead that it is ſomewhat hard, that is a token that you come too neere the ſhoulds, ſaile then ſo forth upwards to Dunbrittaine, there lyeth a little iland on the ſouth ſhore, which is it low water faſt to the iland, when you ſhal be paſt it about two Cables length, then ancker there in five at high water,

A ſouth and by weſt moone maketh there the higheſt water.

Of the tydes & courſes of the ſtreame.

At waterford an eaſt and by north, and weſt and by ſouth moon maketh high water.

Without the land in the fareway betwixt Silly and Ireland, a ſouthweſt and by weſt moone maketh high water.

In the channel or entrance of waſhford, an eaſt and weſt moone.

The flood runneth there to the northwardes, after high water a halfe tyde, and the ebbe contrariwiſe to the ſouthwards, a halfe tyde after low water, but not ſo ſtrong as the flood.

On the eaſt coaſtes or Ireland to the ſouthwards of the bay of Dublin, a ſouthſoutheaſt and northnorthweſt moone maketh high water.

At Dublin a ſoutheaſt and northweſt moon.

The flood runneth from the Tuskar without the bankes alongſt betwixt Ireland and England northnortheaſt; and the ebbe ſouthſouthweſt.

On theſe coaſts a ſouthſoutheaſt & northnorthweſt moone maketh high water.

The flood commeth here from the ſouthwardes, and alſo from the northwardes, about the north part of Ireland, and meete one another about right againſt Carlingford

where they ſtoppe one the other. The ebbe contrariewiſe falleth (to the northwards of Carlingford) to the northwards , and (to the ſouthwards of Carlingford) to the ſouthwards.

On the coaſt of Ireland from the Southrock and Northrocke unto the Coplands Iles, a ſouthſoutheaſt and northnorthweſt moone maketh full ſea. But to the northwards of it a ſoutheaſt moone.

On the iland of the Ragleens and Skires Portruſh an eaſtſoutheaſt and weſtnorthweſt moone,

The flood cometh there out of the weſt , and falleth through betwixt Ireland and *Scotland* : from the Cape Cantir to the mull of Galloway, ſouthſoutheaſt, unto the Iland Man , there the floods out of the ſouth and north doe meet one to the other. The ebbe cõtrariewiſe falleth alongſt the coaſt northnorthweſt betwixt Ireland and *Scotland* to the weſtwards unto the Ocean ſea.

At Engliſtoun in the Sound of Glaſkow, a ſouthweſt moone maketh full ſea.

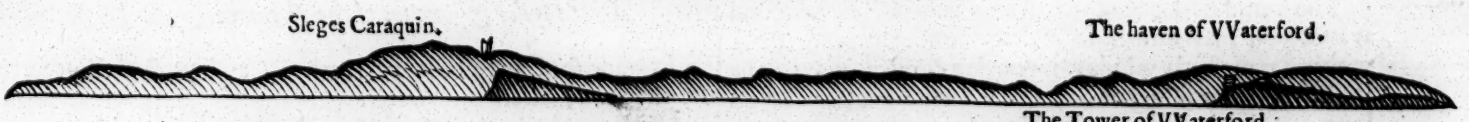
Courſes & Diſtances.

From Waterford to the Jlandes of the *Saltees* eaſt, but to goe about to the ſouthwards of them eaſtſoutheaſt 3 leagues.
From the ſouth end of the Saltees to Blackrock northeaſt and by eaſt 2 leagues.
From Blackrock to Carnaroort n.e. 1 league.
But to Grenore 2 leagues.
From the *Saltees* to the Tuskar eaſtnortheaſt , but from without the fowle ground to the ſouthwardes of the *Saltees* northeaſt and northeaſt and by eaſt 5 leagues.
From Blackrock to the Tuskar eaſtnortheaſt 2 leagues.
From the Tuskar to Grenore northweſt and by weſt , and weſtnorthweſt 1 league.
From Grenore into Grene-bay firſt northweſt & by north , & then weſtnorthweſt 1 league.
From Greene-bay to the barre of Waſhford , north and north & by weſt one great league
From the Barre of Walſhford unto Walſhford about one league and a halfe.
From Waterford to Graſholm eaſt and by ſout 21 leagu.
From the Tuskar to the rock Maſcus eaſt and by ſouth 8 leagues.
From Tuskar to the rocks *Smaels* ſoutheaſt and by ſouth about 10 leagu.
From Tuskar to the lands end of England ſouth & by eaſt 40 leagues.
From Waterford to the lands end of England ſouthſoutheaſt but to Silly ſouth and by eaſt ſomewhat ſoutherly, 40 leagues.
From the point of Glaskarrick to the point of Arkelo north & by eaſt 4 great leagues.
From Arkelo to Mizanhead north & by eaſt ſomewhat eaſterly 3 leagues
From Mizanhead to the point of Wicklo north and by eaſt ſomewhat eaſterly 2 leagues.
From Wicklohead to the flat poynt by Nicaſtle north 3 leagues.
From Nicaſtle to the poynt of Brae north, and north and by weſt one league and a third part.
From Wicklohead to Braehead north , and north and by weſt 5 leagues.
From Braehead to the Iland of Dalke north and by weſt 2 leagues.
From Dalke to the Barre of Dublin northnorthweſt two leagues and a half.
From the ſound of Dalke to the poynt Houth northnortheaſt two leagues and a halfe.
That courſe runneth without the poynt Houth , Irelands eye, Lambey, and Rock a Bill.
The Bankes lye from the Tuskar to the north end northnortheaſt and ſouthſouthweſt.
From the Barre of Dubling to Holyhill in the Iland Angleſey eaſt and by ſouth 19 lea.
From the Barr to the town Dublin weſtſouthweſt two leagues.
From Lambey to Drodagh northweſt and by north five leagues.
From Lambey to Carlingford north & by weſt 13 leagu.
From Carlingford to S. Iohns poynt northeaſt ſomewhat eaſterly 7 leagues.
From S. Iohns point to Strangford northeaſt and by north 4 leagues.
From Lambey to the South-rocke northnortheaſt 21 leagues.
From the northrock and *Southrock* unto the Coplands Jles n.n.w. 6 leagues.
From the Coplands Iles to the north poynt of Knokfergus northweſt ſomewhat northerly 3 or 4 leagues.
One league to the northwards lyeth the haven of Oldefliet. From Oldefliet to the Raghleens within the Maydes, through northnorthweſt 6 or 7 leagues.
From the Ragleens to *Skires* Portruſh weſtſouthweſt 6 or 7 leagues.

Of the Depths.

Waterford, or the tower of Waterford lyeth in 52 degr. or a little more.

How theſe Lands doe ſhew themſelves at ſea:



Thus ſhewed it ſelfe the land about Waterford, and to the weſtwards, with the high land of C. Quin, or Cara Quin, when you come towards the land.

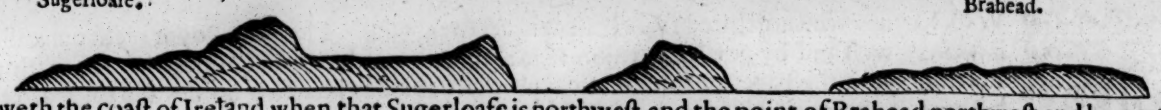
Thus ſheweth the Saltees, when they are 3 or 4 leagues weſt and by north from you.

Thus ſheweth the land between the Saltees and the point of Grenoort is about 2 leagues from you.

The figure following is to bejoyned unto the former, the AA one to the other.

The

The land to the northwards of Greenoore ſhewed thus, when the northermoſt point, where the croſſe ſtandeth over, is north and by weſt about five leagues from you, and Greenore ſouthweſt and by weſt, ſo farre that a man may but even ſee it from below, and then a man may ſee the Tuſkar from the top in the ſouthweſt.



Thus ſheweth the coaſt of Ireland when that Sugerloafe is northweſt, and the point of Brahead northweſt and by north about ſeven leagues from you. When that Sugerloafe commeth northweſt and by weſt from you, then may you runne ſo in, over the north grounds through a broad channell of nine and ten fathom deepe.

When the Sugerloafe is thwart from you, it ſheweth vvith the high land vvithin it, thus.

Sugerloafe. Braehead. Iland Dalke.

Thus ſheweth the coaſt of Ireland betwixt the Sugerloafe and the Jland Dalke, lying a the ſouth point of the Bay of Dubling, when a man is about Braehead, one or two leagues from the land.

South point of Dubling. Iland Dalke. The Point Houth. Iland Lambey.

When a man commeth from the ſouthwards, thus ſheweth the Bay of Dubling with the point Houth, and the Iland Lambey to the northwards of it.

The iland Lambey ſheweth it ſelve thus, when it is from you northweſt and by north one league off.

Thus ſhewed the land a little to the ſouthwards of Carlingford, when this high point is northweſt from you about five leagues. He that will goe into Carlingford, muſt goe in cloſe by the ſhore.

The land to the northwards of Carlingforde ſheweth it ſelfe thus, when the northermoſt point is north and by weſt from you 5 or 6 leagues.

S. Iohns point ſheweth thus, when it is 4 leagues northweſt from you.

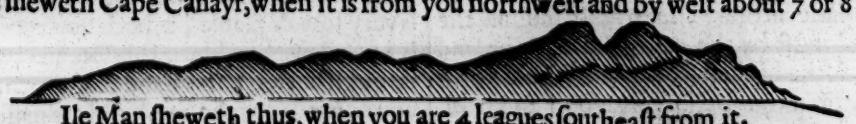
Thus ſheweth the point of Scotland over againſt the Bay of Knockfergus, called the mul of Galloway, when men ſaile alongſt by it, a league without the land, and that the northermoſt & the low point is n.e. from you, and the ſouthermoſt ſ.e. from you. Vnder the north point it is on both ſides good anckoring in 10. or 12 fathom, for ſoutherly & eaſterly winde,.

The Jland Elzee in the great bay of Dunbrittain ſheweth it ſelfe thus.

The Iland Lamblaſh, or Lam Ile on the e. ſide of the iland Arren ſheweth it ſelf thus, being 2 leag.. off from it.

The Iland Commer Jle lying before the ſound of Dunbrittaine, or Glaskow, ſheweth it ſelfe thus.

Thus ſheweth Cape Canayr, when it is from you northweſt and by weſt about 7 or 8 leagues.



Ile Man ſheweth thus, when you are 4 leagues ſoutheaſt from it.

The

The fifth Demonſtration.

In which

The Coaſtes of Vlſter and Mumſter, from Bandhaven to Mizanhead, are deliniated.

Loughfoile.

TWO leagues weſtnorthweſt from Bantharen, or weſt and by north from Skires Portruſh, lyeth the haven of Loughfoile, before it lieth a great plate of ſand called the Touns, which lyeth from the weſt poynt of the haven a great wayes to the northwardes of from the ſhore, when the winde is out of the ſea, it breaketh very much upon it, with ſmal ſhipps that draw little water, men may ſayle into Loughfoile haven at high water to the ſouthwardes of the Touns, betwixt the Touns and the ſouther poynt, called Magillions poynt; but it is there very uneven, and at ful ſea there cometh no more then eight foote water, but alongſt to the weſtwards of the Touns, it is very deepe, men may ſound about the Touns on the off ſide in foure fathom.

Tonus,

For to finde the channel that lyeth into the weſtwardes of the Touns, (comming from the eaſt, or alongſt by the Touns) you muſt looke out for a little ſandy Bay, that lyeth on the weſt ſide, even within the north poynt of the river under the high land; bring it ſo, that you may ſee it open of the foreſayd north poynt, and ſayle in thereupon, until you come by the land, and then runne in alongſt by it ſouthweſt until you come right againſt Greencaſtle. If you come from the weſt or the north, you may boldly without feare runne alongſt the ſhore, & about the poynt upon your lead, without comming neere the towne, you may ſee any thing that might doe you hurt, comming by Greencaſtle, there may you anckor ſo that you may ſee Withcaſtle without the poynt of Green-caſtle, there you may lye within the Towns, ſheltred for windes out of the ſea.

Roal in Loughfoile

For to ſayle up from Green-caſtle, you muſt runne up alongſt by the weſt ſhoare by your lead, and ſhunne the little ſandes that lye here and there alongſt that ſide, until you come paſt With-caſtle, right againſt the three trees, there is the ordinarie road.

Betwixt Green-caſtle and With-caſtle neereſt unto Green-caſtle goeth a Creeke or Slencke through the grounds, unto the eaſter ſhore, which is as deepe or deeper then the right fareway unto With-caſtle. When men come off from Green-caſtle, they muſt take good heed not to go farre off from the weſter ſhore, leſt they fal into that creeke.

How men ſhal ſaile from the foreſayd roade forth up unto the Towne Derry, they may perceive or marke by the card.

Jlands Eneſterhull.

From Loughfoile-haven unto the Jlands Eneſterhul (by ſome called Monſterhul) the courſe is northweſt foure or five leagues, theſe are ſmal black Ilands or rockes, not very high above water, and lye a little off the northermoſt point of Ireland, called Eniſton, a hig plaine land, & very good to knowe for him that hath once ſeen it. Betwixt the Ilands & the point men may ſaile through, but not without great danger for them that are not very wel acquainted with it, becauſe of much fowle ground & ſhowlds that lye betwixt them both. Vnder the foreſaid poynt Eniſton, on the weſt ſide, men may ancker for eaſterly windes, or els to ſtoppe the tyde.

Lough-Swilly.

From the Jlands Eneſterhul unto Lough-Swilly, of ſome called Lockſillie, the courſe is ſouthweſt 5 leagues, that is a faire haven. For to ſaile in there, men muſt ſhunne the weſt ſide, and goe in alongſt by the eaſter ſhore: The land about Lough-Swilly is the higheſt land of the whole north coaſt of Ireland, and thereby it is alſo very good to know, for thoſe that (comming out of the north) do fal with the lands there abouts.

Sheepshaven.

Foure or five leagues weſtſouthweſt, or ſomwhat weſterly lyeth a large broad haven, called Sheepeſhaven, but it is at ſome places fowle ground, within it men may lye landlockt for al winds. The weſt Poynt lyeth out, called Hornehead, or cape de Horne, upon it is a hil with two hommockes; to ſee to like two hornes and there after the poynt is named.

Horne head, Cape de Horne

At the weſt ſide of this poynt, men may ride and ancker within the rockes for eaſterly windes. Betwixt Lough-Swilly & ſheeps haven lyeth alſo a Bay, where men may ancker, but the ground is not very cleane, and right againſt it in the offing, halfe a league from the land, lyeth a ledge of rockes, wich at high water are under, and at low water lye above water, men may (for need) goeth through betwixt it and the land, but without it is beſt & ſureſt.

Tore Iland Balene

Weſtnorthweſt about two leagues from C. de Horne or Hornhead, lyeth the iland Tore, to the ſouthwards of it lie three ilands, called the ilands of Baleneſſe, men may ſayle through to the ſouthwards of Tore iland, to wit, betwixt ile Tore, & the ilands of Baleneſſe, & alſo within the rocks.

Ilands Aran.

From the iland Tore to the iles of Aran, the courſe is ſouthweſt & by ſouth 6 or 7 leagues, betwixt them both, not far from the iland Aran, lye ſome high rockes, called the Staggs or Aran. Alongſt al that coaſt betwixt Horne-head & the ilands of Aran, is good ancker ground al over.

Staggs Aran.

For to come to ancker under the ilands of Aran, cõming out of the North, runne alongſt by that great iland, leaving it on the ſtarboard ſide, until you be within it: goe then towards the ſouthweſt, and ancker on the ſoutheaſt ſide, there is the roade. Men may alſo ancker in the ilands over againſt it towards the maine, in divers places, & lye landlockt for al windes.

Vpon the northweſt point of ireland, a good wayes landwards in, lieth a high hil, of faſhion almoſt like a Sugerloafe, which is ſeen in cleare weather before any other land, at leaſt nine leagues at ſea: When that hil lyeth eaſt & by ſouth from you, and then ſaile in right with it, you ſhal not miſſe to fal right with the great iland Aran.

Cape de Telling, Telling-head,

From the iland Aran unto the point Telling-head, called by the Iriſh C. de Telling, or Tellin; the courſe is ſouthſouthweſt eight or nine leagues. Three or foure leagues to the northwards of C. de Telling lyeth an iland called Raiglene borne.

At the cape Telling lyeth a little iland, halfe a league from land, men may ſaile through betwixt the iland and the cape, boldly without any danger.

To the ſouthward of C. de Telling, to wit, betwixt the Cape and the Staggs of Broadhaven, lyeth the land with a great baye, where in lye many goed Havens, as Tilling-haven, Kilbegh, Dungal, Ballaſhaven, Slego, Endrigo and Moye.

Kilbegh

From the Cape of Telling unto Kilbegh lyeth the coaſt e.ſ.e. about foure leagues: betwixt both, about one league and a halfe from the cape, lyeth Telling-haven, a round bay with good ſandy ground, there may about 30 ſhips lye, weſt and ſouthweſt windes do blow there open in, for al other windes men are there landlockt.

Kilbegh, or Kalebegh is alſo a faire round bay, but it is very narrow at the comming in of it: When men are a little from the ſhore, it ſeemeth to be al cloſe without any opening. About halfe a league to the weſtwards of this bay, a quarter of a league from the land, lyeth a little iland, wich is very low & plaine, at both ends going plaine downe, that is a good mark to know this foreſaid bay, men may alſo ſaile through betwixt the iland & the maine, if they wil, When you come out of the weſt, and are paſſed that iland, then go neere the ſhore, which is clean & cleare, & go freely cloſe aboard of it, until you ſhal ſee this bay open, and then ſayle boldly in, without any feare, betwixt the two ſhores there is nothing (neither in the going in, neithet within in the bay) that can hurt you, if you doe not ſaile upon the ſhore.

When

Duytsche mijlen 15 voor een graadt
Spaansche mijlen 17½ voor een gra
Engel en Fra mijlen 20 voor een

NOORDCU

De Custen
Tusschen Band
Stakes van

YERN

Duytsche mijlen 15 voor een graadt Lieues d'Allemai 15 en un degre
Spaansche mijlen 17½ voor een graadt Lieues d'Espaigne 17½ en un degre
Engel en Fra mijlen 20 voor een graadt Lieues Angl et Franc 20 en un deg

De Zeecusten
van Yerlant tusschen
Brodhaven en
Brandonhil
t'Amsterdam
By Iacob Aertsz.
Colom

Gallowa y

Endrigo
Slego
CONNAVGH
Dungal
Dungalhaven
Balasshaven
Bondroes
Mulchaven
Bulstoun
Moye oste Muyn
Erverbaye
S Ians point
Castel Monswijn
VAN
Kilbeg
Rafraim
Tellinhaven
Leorus
Tellinghed
S Tellin
I. Raislenebornе
Stakers van Brodhaven
Castel
I. Aran
Van Aran
Les Costes d'Yerlund de Bandhaven jusques à Brandonhil
I. Quoine
Lonchol
Blached
Lymerick
Dorpshoost
Laiskamer
Carobesse
Borratti Be
Bartingras
Scarrix
Kroneke
Kardis
Clare
I Quoile
Lupis hoost
Brandonhil
33

Duytsche mylen 15 voor een graadt Lieues d'Allemais 15 en un degre

Spaensche mylen 17½ voor een graadt Lieues d'Espaigne 17½ en un degre

Engl en Fra mylen 20 voor een graadt Lieues Angel et Franc 20 en un degre

Scales van Brodhaven

Ooster Eylandt

Brod haven

Eneskie

Can Hil

Ardmd

Blacrock ofte de Moor

Bresel

Bores

Fochon

De Zee custen van Yerlant tusschen Brodhaven en Brandon hil

t Amsterdam

By Jacob Aertss. Colom

Schienroo

Don Patrix hil

Port Nassadoy

Clere

Boche

Horshe

Boomcover

Schynes ofte Slyncheda

Slyncheda al Slynhoost

Lymeryck
Borratti
Clare
Blached
Doenhoeft
Liskamer
Gregorius Sond
Caroheske
Baringras
I. Quoin
I. Quoine
Lonchol
Seatrix
Dominica
Kilcrian
Lupis hoeft
Kegs
Brandonhil
Drie Suykers
Sond van Blasques
Enis Clin
Blasques
Horses
Enis Sekye
Rocken
Voor Stadt
Castel
Motton Syde

Mack-
fwinsbay

S. Iohns
poynt.

Dungall-
haven

Moy.

Staggs of
Broad-ha-
ven

Black rock

Acklehead

When you shall be come in, anckor where you please in five six, seven, or eight fathom, so showld or deepe as you will, on the north side within the bay stands a little Castle.

Mackswynsbay — About a little league to the eastwards lyeth another Bay within some rocks, called Mackswynsbay, but it is not to goe in, except men be very wel acquainted, they must go betwixt the rocks in untill they bee gotten in, there they may save a ship without cable or anckor.

S. Johns poynt. — A great league to the southwards of Kilbegh, lyeth a long lying out poynt, called Saint Johns poynt. Right west from that poynt, a quarter, ora little halfe league, lyeth a great Rock under water, whereupon the sea breaketh with great noyse. Betwixt that rock, and the poynt of S. Johns poynt, men may sayle boldly through, it is there cleane and cleare.

Dungall-haven — About two great leagues to the eastwards of that foresayd poynt S. Johns poynt, lyeth the Haven of Dungall, into the southwards. For to saile in there, you must first shun the easter shoare, which is very foule with dry plates and Rocks. When you are come right against a litle castle that standeth on the north side, right against it lyeth off a little riffe from the shoare, that you must avoyd also. And when you are come about the poynt of that riffe, you must goe over again to the north side, for the south side is there flat and showld. Betwixt S. Johns point and Dungall-haven alongst the coast is all over good anckor ground.

Moy. — The Haven of Moy hath at the comming in a broad bay, in it lye some rocks. For to sayle in there, you must leave them all on the west side, that is, on the starbord side, and run towards a little sandy iland, that hath at the north end a little riffe, you must goe into the westwards of it, and leave that Iland on the larboard side. Even within that foresayd Iland lieth another litle round green iland, that must be left on the starbord side, so soon as you shall be right against it, you must let fall your anckor, for a little further it is showld and hard sandy ground, the greatest anckor must be brought towards that foresayd long small Iland, and the small anckor towards the little greene Iland, it falleth there at low water alwaies dry. If you will goe from thence before the town Moy, you must light your ship to 8. foot, for to come through betwixt the long small Iland, and the south grounds, there is at high water with an ordinary tyde no more then 9. foot water; being come over that neck, you shall come into a poole before the towne Moy, there you may ride a float at low water. In the road against the iland it is 15. or 16. foot deep.

Staggs of Broad-haven — The Stagges of Broad-haven are Rockes that lye to the northwards a league or a league and a halfe at seabord of the poynt, to the northwards of Broad-haven.

Broad-haven lyeth in south and by west, in the sound lye three or foure rocks, these must be left on the larboard side, and run in there alongst to the westwards, untill you come within the haven.

Black rock — A great league to the westwards of Broad-haven lyeth an out point southwest from the Staggs. From thence lyeth the coast alongst to black-rock s.s.w. Black-rock is a great high black-rock with more other rocks by it, and lyeth from the foresaid point s.s.w. distant about 6. leagues, & about a leag. northwest from the out point Acklehead.

Acklehead — Acklehead is a very high poynt, and sheweth it selfe a farr off like an iland with a great Saddle, thereby it is good to be knowne. Within this poynt lye also two exceeding high hills, which together with the poynt men shall see first at sea before any other part of the land, so that the poynt doth shew it selfe first like three Ilands. Men may sayle through betwixt Acklehead and Blackrock, coming from the southwards men doe leave Acklehead on starboard, and blackrock (with the rocks thereby a seabord) on larboard, & the course lyeth through betwixt them both n.n.e. & north and by east unto the point of Broad-haven, it is there large and wide.

To the northwards and to the eastwards of Ackle-head, lye divers havens, where it is good riding, a litle to the northwards of Acklehead, you may run into the westwards; betwixt the low land to the northwards on the larboard side, & the high land of Acklehead on the starbord side, a great waies in, and anckor in 7. and 8. fathom, landlockt for all winds, & from thence may come out againe to the northwards, or else may come out into the sea again to the southwards round about the land of Acklehead.

Slynshead. Twelve-pence. — From Acklehead to Sleynshead (by the seafaring men called twelve-pence, because the land doth shew it selfe in 12. round hommocks) the course is south and by east 16. leagues, betwixt them both lye three Ilands before a great bay, the northermost or next to Acklehead is called Cleere, this hath a high hill on the n. end that is very steepe, and at the south end it is flat going downe. The second or middlemost is called Boche, within it is a road for those that are bound to the southwards, where men may anckor in foure fathom. The southermost is called the Horse.

Patricks hill. — Betwixt Ackle-head and Twelve-pence lyeth within in the Land, a very high hill like a Sugerloafe, called S. Patricks hill, or by some Don Patrix, that may be seen far at sea and shall bee seene long, altering it selfe by the cliffe land, as men saile along the coast to the northwards, or to the southwards.

From Sleynshead, or Twelve-pence, unto the sound of S. Gregories, before the bay of Galloway, the course is s.e. nine leagues.

Ilands of Aron. — Before the bay of Galloway lye three great Ilands, called the Ilands of Aron, the northermost is greatest, the channell betwixt the northermost and the middlemost, is called the sound of S. Gregory, which is on both sides cleane without any foule ground, so that men may turne in too and againe from the one iland to the other, without feare of taking any hurt. The north side of the middlemost iland is nothing else but faire steep rocks: when you are come within the Ilands, you must shun the middlemost, because of a little riffe that lyeth off it.

S. Gregories sound. — Men may also saile to the northwards of the northermost Iland, into the great Bay of Galloway, likewise also to the southwards of the southermost, to wit, through betwixt the southermost Iland, and the maine land, but that Iland is foule at the south end of it, and therefore you must runne in alongst close by the south shoare, or at least leave two third parts of the channell towards the Iland, as well in sayling in as sayling out.

Blackhead — Somewhat within the ilands, on the south side lieth a high black point, called blackhead, you must beare in to it, and alongst by it in, whether you come in at the souther channell, or through S. Gregories sound, or else in at the norther channell, for the north side of the bay is foule and rocky. About 2. great leagues n. e. from Blackhead, lyeth an iland, called Motton-Ile, under it on the east side you must anckor in a poole, in 5. or 6. fathom.

Motton ile — You cannot sayle further up to the northwards into the river with shipps, but onely with boats. A northeast and southwest Moone maketh there full sea, and it floweth there so strong in the baye, that the rockes which at low water are above water; at high water you may saile over them; at low water the spring-tydes, the grounds fall dry w. s.w. from Motton-Ile, a great league and halfe off, most all rocky and foule ground.

When you saile from Blackhead towards Motton-Iland you must take heed of the north side, and edge over most towards the south side. About halfe wayes betwixt them both, lyeth a plate or ledge nearest the north side, you must goe in alongst by it to the southwards.

Lupis head — From the Bay of Galloway to Lupishead, the north point of the Haven of Limbrick, the course is southsouthwest nine or 10. leagues. About halfe wayes betwixt them both, lyeth a little Iland that is foule round about with ledges of Rocks that lye off to seawards a league & a halfe a seabord the land.

Haven of Limbrick. Seatrick. — To the southwards of the poynt Lupishead goeth in the Haven of Limbrick. Three or foure leagues eastnortheast within the foresayd poynt, lyeth an iland, called Seatrick, you must sayle alongst without it to the southwards, & leave it on the larboard side in sayling up. At the east side of that iland is a good road. About halfe wayes betwixt that iland and Lupishead, lyeth a showld which you must shun, and saile alongst to the southwards of it. From the Iland Seatrick unto Limbrick, are more 12. or 13. leagues, first from thence to the iland Quoine 4. or 5. leagues, there are two little ilands, you must sayle close alongst to the northwards of them: from thence eastnortheast unto a great rock, called the great Beefe, and then southeast unto another great rock called the little Beefe.

The great and litle Beefrocks.

When

When you are come before the towne in the Haven, you must make fast on the Castle with three or foure Cables, for there goeth a very strong tide as well of flood as of ebbe. An eastnortheast Moone maketh there full sea.

From the Haven of Limrick to the haven of Smerrick the course is southwest seven or eight leagues, betwixt them both lyeth the coast with a great Bay, wherein lye some little ilands, called the Hoggs.

A litle to the eastwards of Smerrick lyeth Sinbrandonhill, a very high hill, which lyeth in height very much above all other Lands thereabouts, they that come out of the sea from the westwards, shall see that hill first before any other Land, and thereby easily know it: Men may see it at sea in the offing, 12, 14, and sometimes 16. leagues off, according as the weather is cleare.

Foure leagues westsouthwest from Smerrick, a little off from the land lye 4. or 5. ilands, being high round Hills and rocks, called the Blaskeyes, with some other rocks and little ilands about them. The Sound betwixt them and the maine land, is called the Sound of Blaskeyes, lyeth through neareſt northwest and s. e. Hee that is bound to the Northwards, may anckor at the south side before the sound for westerly and northerly winds, and not be in-bayed upon no lee shoare: For if the winde shift easterly, hee may either goe through the sound, or else goe about a Seabord the Blaskeys. If the wind shift westerly or southerly, he may run through the Sound, and further his voyage. There runneth through a very strong tyde, as well of the flood as of the ebbe, which must be considered.

Of the Tydes and Courses of the streames.

In the haven of Loughfoile an east and by s. and west and by north Moone maketh full sea. The flood commeth there out of the west and northwest.

At the ilands Enesterhull, and in sheepeshaven an east and west Moone maketh full sea. The flood commeth there out of the west.

In these other foresaid Havens and roads an east n. e. and westsouthwest Moone maketh full sea. In the offing a seaboard a southwest and northeast Moone.

Courses and Distances.

From Loughfoyle to the ilands Enesterhull northwest 4. or 5. leagues.
From Enesterhull to Lough Swilly southwest 5. leagues.
From Lough Swilly to Sheepeshaven w. southwest westerly 4. or 5. leagues.
From C. de Horne, or Hornhead, to the iland Tore w. n. west 2. leagues.
From the iland Tore to the Iles of Aran southwest and by s. 6. or 7. leagues.
From the Ilands of Aran unto Tellinghead southsouthwest 8. or 9. leagues.
From C. de Tellin or Tellinghead to Kilbegh eastsoutheast 4. leagues.
From C. de Tellin to the Stagges of Broadhaven southwest 11. leagues.
From the poynt of Broad-haven to Black-rocke southsouthwest 6. leagues.
From Blackrock to Acklehead southeast 1. league.
From Acklehead to Sleynshead south and by east 10. leag.
From Blackrock to Rokoll north and by west 60. leag.
From Sleynshead unto the Bay of Galloway, southeast 9. leagues.
From the Bay of Galloway to Lupishead the north point of Limbrick haven s. s. w. 9. or 10. leagues.
From Lupishead to Smerrick s. w. 7. or 8. leagues.
From Smerrick to the Blaskeys w. s. w. 4. leagues.
From Sleynshead to Sinbrandonhill south and by west 22. leagues.
From the Bay of Galloway to the Blaskeys, southwest and by south 23. leagues.

Heights.

The ilands of Enesterhull at the northermost poynt of Ireland lyeth in 55. degrees and 10. or 12. minutes.
The river of Galloway lyeth in 53. degr. 10. min.

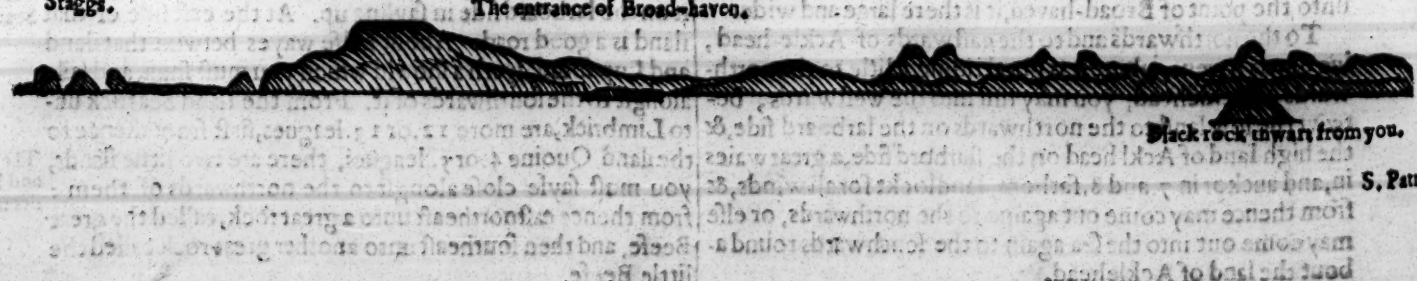
How these lands doe shew themselves at Sea.

The Iland betwixt Kilbegh and the point of Slego.

The high hommock upon the point of Slego.

These two figures belong at the AA, one to the other, and shew the forme or likeneſſe of the land betwixt Kilbegh and Slego.

Thus sheweth the Land to the eastwards of the Staggs of Broad-haven towards Moye & Slego.

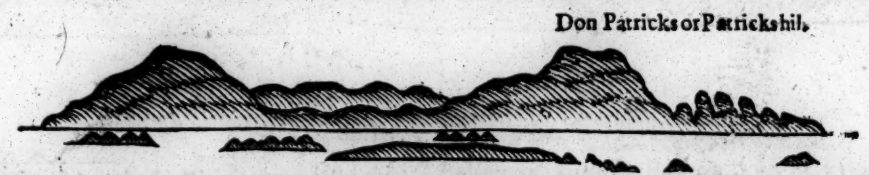


The land to the northwards of Blackrock, as farre as the Stagges, and then to the ſouthwards alongſt paſt S. Patricks hill, ſheweth, as in theſe two figures is deſcribed, when men are thwart of Blackrock.

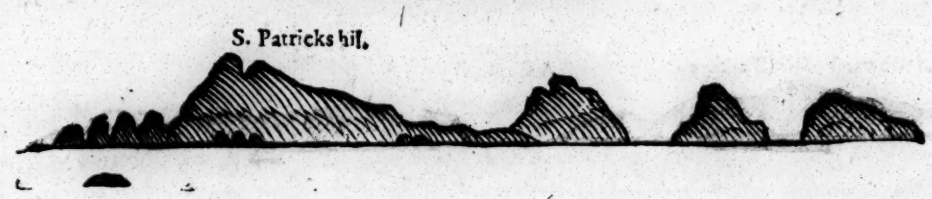
Thus ſheweth the land betwixt Blackrock and Ackelhead when it is eaſt from you, when you come more to the Northwards, theſe high hils doe alter alſo wider one out of the other.

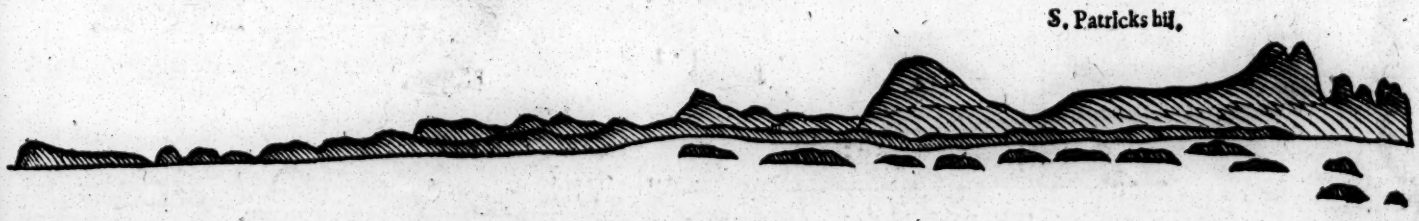
The point of Blackrock ſheweth thus when you are to the northwards of it.

Thus ſheweth the point of Blackrock, when men are to the ſouthwards of it. then they ſee a ſharpe rock over the point.



Thus ſheweth *S.* Patricks hill, when it is ſ. e. and by ſ. from you, being not farre from Land, at the n. ſide of it lye ſome little Ilands and rocks.





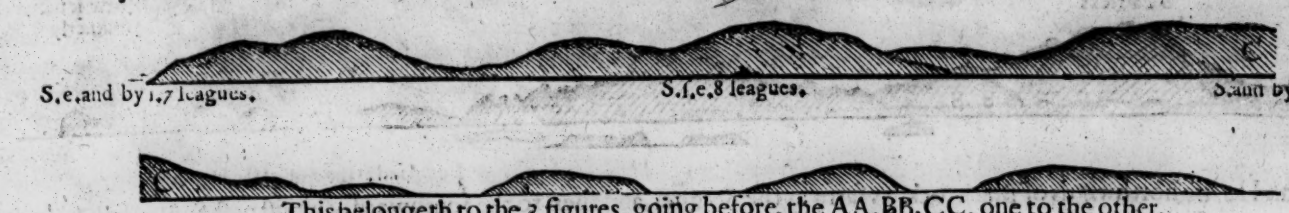
Thus ſheweth the ſecond point to the northwards of Blackrock, lying in the height of 54 degrees and a halfe.

The Ilands, as alſo the maine land by north and by ſouth the Bay of Galloway, ſhew, as you may ſee in theſe 5 following Figures, when as you are right before the ilands of Aron, which lye before the Bay of Galloway.

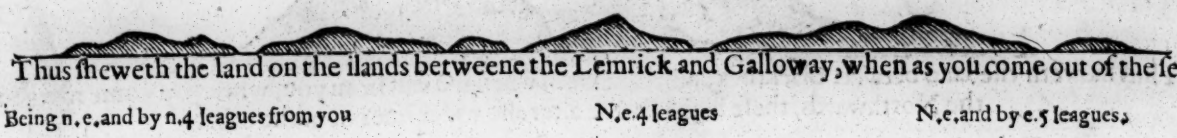
Theſe 4 following figures belong one to the other, as the markes doe ſhew.

Betwixt theſe two Ilands it is 20 fathom deepe.

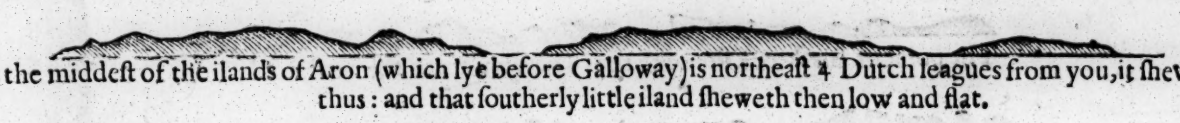
The 3 Ilands of Aron before Galloway.



This belongeth to the 3 figures, going before, the AA, BB, CC, one to the other.

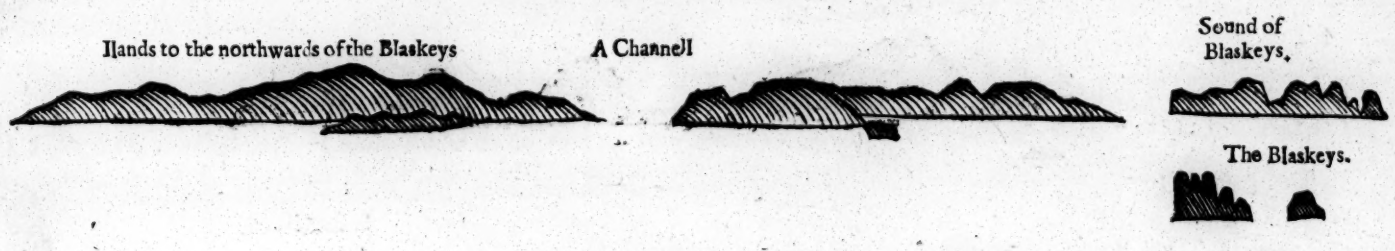


Thus ſheweth the land on the ilands betweene the Lemrick and Galloway, when as you come out of the ſea.



When as the middeſt of the ilands of Aron (which lye before Galloway) is northeaſt 4 Dutch leagues from you, it ſheweth it ſelfe thus: and that ſoutherly little iland ſheweth then low and flat.

The Land of C. Kerry, or Sinbrandonhill (by ſome called Devils hill) unto the Blaskeyes, lying n.e. and by e. 5, or 6 leagues ſheweth, as is pictured out in theſe two figures, when the foreſaid hill of Sinbrandon is e.ſ.e. from you three or foure leagues.



The Blaſques being ſ.e. and by ſ. 3 leagues from you, ſheweth thus.

The higheſt rock of the Blaſques, being two leagues e. and by ſ. from you, ſheweth thus.

De Zuydcust van YERLANDT tusschen Oldhooft en Waterfoord.

ZVYDCVST VAN YERLANDT

Les Costes d'Yerland Entre Les Blasques et Waterfoord

Corck
Balkhed
Kinsael
modder
Kins
Sandbay
Corkbeg
Sandbar
Oldhead oste Oldhooft
Bolicotton
Caiton ilz

C. Mirst
I. Risk
Dingle Loch
Ventry
Castel
Castel
Dingle Bay
Dunkerron
Horses
Ins. Horm
Enis Clon
Blasques
Rocken
Enis Shraz
Valentia Iland
Swylevant more
Long Argrum
Kenmare
Gods head
Balefchel Bgh
Sermoy
Ouc Castel
Verrullen Castel
Middel Skyllingh
Great Schyllingh
Skyrst
Wenis
Dorsis
Sond van Dorsis
Kalf
Bul
Kot

Duytsche mylen 15 in een graedt — Lieues d'Allemaigne 15 en un degre

Spaensche mylen 17½ in een graedt — Lieues d'Espagne 17½ en un degre

Eng: en Fran: mylen 20 in een graedt — Lieues Angl. et Franc. 20 en un degre

Kara Quin hft
C. de Quin

Thoge landt van Dungarvan

Dungarvan

Thoge landt van Ardimore

Ardimore Castel

Ardimore point

C. Dungar.

Waterfoord

Chicke point

Passage

Crookpoint

Strammore Bay

Pointz Bath

Redbanck

Morphiy

Monckatour

Duytsche mylen 15 in een graedt — Lieues d'Allemaigne 15 en un degre

Spaensche mylen 17½ in een graedt — Lieues d'Espaigne 17½ en un degre

Eng: en Fran. mylen 20 in een graedt — Lieues Angl. et Franc. 20 en un degre

Glendore

Oldched

De
Zuydwest hoeck
van Yerlandt
tusschen de Blasques en
Oldched.

Roose

Langerfhaven

I. Wildy

Balgebben

Somrack

Abyshore

Cort

Kilhoa

Mount

Castelhaven

Crook

Salmon Lap

Schollhaven

Limcon

Caimar

Long Hland

Flats

Stakes

Crookhaven

Clere

Clooster

C. de Clare

34

Spaensche mylen vyfftin
Eng: en Fran: mylen
C. Minet
I. Rijst
Dingle loch
Venterr
Castel
Castel
Sondt van Blasques
Horses
Ens Moron
Cnis Clon
Rocken
Enis Chroe
Blasques
Dingler Bay
Donkeryn
Sorlyvant more
Valentia Iland
Kil mare
Long Argrun
Gods head
Blaskshel Ligth
Sermoy
Skryst
Middel Skillingh
Great Scinylingh
Wems
Dorses
Sondt van Dorses
Kalf
Bul
Koe
Lagers haven
Salmon

De Zuydwest hoeck van Yerlandt tusschen de Blasques en Oldehed.

Lieues d'Espaigne 17½ en un degre

Lieues d'Angl. et Franc. 20 en un degre

Glendore

Olde head

Boysse

Somrack

Lagery haven

Balgobben

Abastroa

Cort

I. Spick

Mount

Castelhaven

Kilhoa

Crook

Cove

Spain

Scholtzaer

Rosbren

Coppeger

Salmonlap

Limcon

Rosbren

Prie

Long Ilanc

Sken

Flats

Cainor

Stakes

Clere

Cloester

C. de Clare

Crook haven

Skellocks

Dingle-
bay.

The Crow

Begenny
Haven.

C. Dorſey

Bull Cow
and Calfe
ronckes.

Mizan-
head.

Three Ca-
ſtles.

Sheeps.
head.

Beerhaue

The ſixth Demonſtration.

Wherein

The coaſts of Munſter, betweene Blaſques and Oldhead, and the ſouth coaſt of Ireland, from Oldhead to Waterford, are ſet forth.

Skellocks

SEven or eight leagues to the ſouthwards of the Blaskeyes lye three great Rockes called the Skelloks, the eaſtermoſt about a league, and the weſtermoſt two great leagues a ſeaboard the land, when you come from the ſouthwards and ſee them firſt, they ſhew like ſailes of ſhips. Betwixt the Skellockes and the Blaskeyes goeth in a great broad Bay deepe into the land, called Dinglebay, with divers havens in it.

Dingle-bay.

About a league and a half from the Sound of Blaskeys lyeth a haven called Ventrie, a great league to the eaſtwardes of it another called Dingle, or Dingle Couch, it lieth north and by weſt in at the weſt point of it lyeth a rocke called the Crow, which is clean round about, ſo that men may ſayle round about it on both ſides, within taking any hurt, at high water with ſpring tyde, it floweth even under water. This haven of Dingle & the Skellockes, lye north-eaſt and by north, and ſouthweſt and by ſouth diſtant eight leagues.

The Crow

Begenny Haven.

Northeaſt from the Skellockes, ſoutheaſt from the Sound of Blaskeys, and ſouth and by eaſt from the Ventrie, lyeth a haven at the eaſt end of the Iland Valentia, called Begenney, which lyeth eaſtſoutheaſt in, you muſt giue the eaſt poynt of the Ilands a Birth off, becauſe it is fowle, and lyeth a good wayes off: there lyeth alſo a ſuncken rock on the Iland ſide, which you muſt take heed of when you are come within the entrey of the haven, you muſt goe eaſt & by north unto the road, which is right againſt a red cliffe that lyeth on the ſouth ſide.

The Skellockes and the Cape Dorſey lye northweſt and ſoutheaſt ſeven or eight leagues a ſunder, betwixt them both goeth in alſo a great broad Sounds, northeaſt in, whe-

C. Dorſey

rein lye many Ilands, havens, and roads.

C. Dorſey is an Iland within which men ſayle and ride under. For to goe in there from the ſouthwardes, you muſt, give the eaſt ſide a birth, that is, the ſide of the maine land which is fowle, and run in alongſt by the ſide of the Iland, untill you be come within, and anckor there.

Bull Cow and Calfe ronckes.

Without the Cape Dorſey lye three great rocks, the outermoſt or the weſtermoſt is called the Bull, the middlemoſt is called the Cow, and the other the Calfe, they are clean round about, ſo that men may ſail there through between them, without feare of any danger, there is nothing that can hurt but men may ſee it.

Mizan-head.

About ſeven leagues eaſtſoutheaſt from C. Dorſey lyeth the point Mizanhead, betwixt them both goeth in a great Bay or river deepe into the land (with divers havens and roades) called the Bantry.

Three Caſtles.

A great league to the northwards of Mizanhead, lyeth a poynt called the Three Caſtlehead, upon it ſtandeth three flat Towers, but men kan hardly ſee them Except they be neere the land. Alſo a great league more to the northwardes, lyeth a ſmall poynt called Steepſhead. Betwixt theſe two poynts goeth in a great broad Bay, called Dounams Bay, there is nothing to doe nor to fetch, but it is a fit place to ſaue ſhips, and all over good anckor ground.

Sheeps-head.

Beerhaue.

From Sheephead to Beerhaven the courſe is north and by weſt, or ſomewhat weſterly about two great leagues, it goeth in between an Iland on the eaſt ſide, and the main land towards C. Dorſey on the weſt ſide, it is about a great muſket ſhot broad, the foreſayd Iland on the eaſt ſide is called the Iland of Beerhaven and is about two leagues long. For to ſail in there you muſt keep the mid way, in the entry of the haven it is clean, without any fowle ground: after you be come in, there ſtandeth on the larboard ſide a ruined caſtle, and a little further are two little rivers, cloſe one by the other, between theſe two little rivers ſtand ſome Fiſher-houſes. Men may ſaile into the foreſayd little rivers, they are deepe enough, but commonly men doe anckor before them, or by that foreſayd ruined caſtle, or els ſomwhat further in, it is all over good anckoring, and cleane ground, except right againſt the foreſayd little rivers, lye ſome rocks about the middle of the channell, which at high water are under, and at low water lye above water, theſe onely muſt be ſhunned, but men may goe on either ſide of them. Somewhat further in the bay ſtandeth another caſtle called Old-caſtle, from thence men may ſaile alongſt to the northwards of the Iland Beerhaven, and come out to the eaſtwardes into Bantry. The ſound on the north ſide of the Iland is large, broad, and cleane, 13, 12, and 10 fathom deepe. The eaſt point of the Jland is a ſharpe point, and very fowle; there lyeth off a ledge of rocks, where of ſome lye under water, and ſome aboue water at low water, but the ſide of the maine is cleare and cleane. In this entry lye alſo two great rockes high aboue water, but clean round about, men may run through between theſe rocks, or to the ſouthwards, betwixt them and the foreſayd ledge of rockes, or alſo to the northwards alongſt betwixt them and the maine land, as well in comming in as in ſailing out, there is no danger more then men may ſee.

Road in Beerhaue

The VVhiddy.

From Beerhaven to the north point of the Iland Whiddy, lyeth the Bantry e.n.e. and northeaſt & by eaſt 6 or 7 leagues: over againſt Beerhaven in the middeſt in the fareway, it is deepe 40, 36, and 30 fathom, within the Iland, 15 and 16 fathom, but further in towards the Iland Whiddy, it is agayne 20 and 25 fathom deepe: men may ſayle round about the Iland Whiddy, (which is about a league long) but to the northwards it is beſt.

For to ſaile in about to the northwards, or to the eaſtwardes, men may goe in cloſe by the north or eaſt point, but a little within the point, lyeth a little ledge of rockes, a little muſket ſhot off from the ſhore, which at high water lyes under, but a halfe ebbe beginneth to come aboue water, that onely is there to be ſhunned, being paſſed that, you may anckor all over. About that foreſaid point lye two ſmall Ilands, by the greater men may ſayle alongſt on both ſides of it, either within it or without it, untill before a Gentlemans houſe which is white, upon the Iland Whiddy, and anckor there againſt it in 3, or 4, or five fathom; ſo deepe or ſo ſhould as men wil, according as men deſire to ride neere or fat from the ſhore, it is there all over clean ground.

For to ſaile in to the ſouthwards of VVhiddy.

He that will ſaile into the ſouth poynt of the Whiddy, had need be very well acquainted it is there to the ſouthwardes betweene the Whiddy and the maine land, at moſt places fowle and ſtony. From the weſt ſide of the Whiddy, lye alſo ſome fowle ground and rocks, ſomewhat off the Iland to ſeawards, ſome above, and ſome under water.

The Abby

To the ſouthwards of the Whiddy upon the maine land, ſtandeth a Fiery or Abbey, called by the Iriſh the Abbey, right againſt it is the common road, and it is very good ground in 4, 5 or 6 fathom, according as you ſhall ride farre or neere to the ſhore, to the northwardes lyeth a little Iland ſo low in the middeſt, that at a ſpring tide the ſea floweth over, and devideth it in two.

A little league to the eaſtwards of the Abbey lyeth a little towne upon a little river called Balgobben, at high water men may goe up there with their boat, but at low water it falleth dry.

Langerf.

A great league from the eaſt poynt of the Whiddy, weſt-northweſt, lyeth a haven called Longerf, when you ſhall ſaile from the foreſaid poynt towardes it, you ſhall meete right in the fareway, about halfe wayes over a great rocke,

which men may be sayled about on both sides, but it is best on the off-side. The off-side is cleane and cleare, but on the inner-side lyeth some fowle ground. He that will sayle through on the inner side, had need to be very well acquainted. The foresayd haven of Langerf lyeth n.n.w.: Even within it in the extrance on the starboord side, lyeth some fowle ground, which at low water (the Spring tydes) may be seen drye, these must be shunned, or els it is there within all over good anckoring and good ground, there is no more danger, but men may see it.

When a man is neer the Jland Whiddy, about middest of the bay, he cannot see the land without the Jland Beer-haven on the west side of the Bay, because it falleth away so alongst to the westwardes.

From Mizanhead unto C. Cleare the course is east and by south distant seven leagues. About three leagues within or to the eastwards of Mizanhead, northwest from C. Cleare, lyeth a haven called Croock-haven, He that commeth from the east, and is bound in there, must runne alongst by C. Cleare, up about it to the northwards, so farre untill he may see through into sea to the northwards of the Jland of C. Cleare, as through a hole, and set then his course west-northwest, keeping that foresayd hole (to the northwardes of C. Cleare) open, then he shall fall right with Crook-haven, which lyeth in w. s. w. And there he may anckor before the little town in three fathom, and two fathom and a halfe. It was wont heretofore to be deeper there, but it is spoiled most by casting of ballast, men may also anckor further out then before the towne, there it is deeper, and all over cleane ground.

Crooke-haven.

Two little leagues west and by south from C. Cleare, lyeth a high steepe rock alone in the sea, called Fastney, which sheweth at first sight like unto a sayle, north and by west 3 or 4 leagues, from this rock lyeth a haven called Schoolhaven.

Fastney-rock.

Schoole-haven.

A little to the eastwards of the Jland of Cape Cleare lyeth another Iland called Ile Sherk. To the eastwards of it, betwixt that Iland and the maine land goeth in a haven called Baltemoore haven: It is somewhat narrow at the mouth of the haven, but within the mouth of the haven it is large and broad, there may you anckor on both sides where you will, and lye land-lockt for all windes. On the west side within the haven standeth a Friery, close before it you may anckor in five and sixe fathom; in the middest of the haven it is sixe and seven fathom deepe. A little to the northwardes of the foresayd Friery standeth a castle upon a point. In the mouth of the haven lyeth a sunken rock, neerest to the east side, and within in the middest of the haven lyeth a rocke, which at high water lyeth under, and at low water lyeth aboue water, there is nothing els that can hurt. A little to the eastwardes without the haven, lyeth another rock sixe or seven shippes lenghts from the shore.

Ile Sherk.

Baltemoore Haven.

To the northwards of the Jland of the Ile Shercke, men may goe to the westwards through betwixt Jle Sherke, and the Iland Spain, & come out againe into sea by C. Cleare, but it is to bee done onely with small shipping, and yet not without danger. Betwixt Jle Sherke and Spain, is at halfe flood not more then twelve or thirteene foote water. At divers other places betwixt these Ilands it is rocky and showld, so that is is not good to goe through within, except men bee very well acquainted, and yet at high water and spring tydes.

For to saile through within the Ilands of C. Claare.

A little league to the eastwards of Baltemoore lye the Stagges, an English mile from the shore, they are fiue or sixe high steepe rockes. When men come from the eastwards alongst by the shore, and get first sight of them, they are like unto some spirie towers together, men may sayle through betwixt them and the maine land, it is there large and broad enough.

Staggs.

Northeast about two leagues from the foresayd Stagges, lyeth Castlehaven, without it on the east side lyeth a little iland, you must leaue it on starboord side in sailing in, and another little flat iland on the larboord side, that lyeth so close to the land, that at low water men may go dry foot ouer from it to the maine land. Within the haven standeth a little Chappell, when you will saile in there, you must run in right with it, close alongst by the foresayd little iland on the east side: when you are come in, thwart of the Chappell, you shall see a Castle on the west side, over against that Castle you may ankor in 12 fathom.

castle Haven.

From Castlehaven unto the Oldhead, the coast lyeth most e.n.e. and w. s. w. but C. Cleare and the Oldhead lye northeast and by east, and southwest and by west, distant 13 or 14 leagues.

About halfe wayes betwixt Castle-haven and the Oldhead lyeth a high poynt called by the Irish, Kedonetedo, there by it on the west side is a good haven calleth Clandore: For to sayle in there, you must run in alongst close aboord by that foresayd high land on the east side; for to shun a rane of rockes that lyeth on the west side, and lyeth off somwhat towards the east side, when you are come in, you may anckor before a Castle in five, or seven fathom.

Kendonetedo.

Clandore.

The Oldhead or c. de Velho, is a poynt that lyeth out farre without the other land, the outermost south end of it is very high and steepe, when you are come alongst the shore from the east or from the west, and see it first, it seemeth to bee an Iland, upon the top of it standeth a ruined castle with three Towers, whereof the middlemost is the highest. On both sides of this outlying point men may anckor so deepe or showld as they will.

About two leagues north and by east from that poynt, lyeth the haue of Kinsale, lying in northnortheast, you may saile in there, keeping the middle of the channell, there is no danger, neither without not in the harbours mouth, but one suncken rock close by the east poynt. When you come in from the Oldhead, or from the southwardes, and you keep an old ruined castle (that standeth within the haven on the east side) even without the Innermost east poynt of the haven, then you shal not come neere that rocke to take any hurt of it. About a great halfe league to the eastwardes or the havens mouth, lye two great black rockes, the one somewhat further from the shore then the other. When you come from the eastwardes, and you will goe in close about the east poynt, and you keepe the southermost (that is the greatest) right on the east poynt, then you shall go through betwixt the suncken rock and the point: but if you keepe the northermost (or the smallest) a litle without the foresayd poynt, so long untill you haue brought the foresayd old ruined Castle, without the innermost poynt, then you shal goe alongst without it, & then in the midst of the channel alongst by the easter shore. A little past that foresayd old ruined Castle, standeth a Castle on the west side upon a point, there lyeth off a showld, which must be shunned, & therefore you must keep close alongst by the easter shore, until you be gotten about the showld of the Castle, and then westwardes up unto the Kay of Kinsale, there you may anckor in eight or nine fathom, and lye landlockt for al windes. The towne Kinsale lyeth a little to the northwardes in a bay, where it is oasie soft ground, part whereof falleth dry at low water.

Kinsale.

Foure leagues to the eastwardes of Kinsale, lyeth the haven Corck, betwixt both about a league to the westwardes of Corck, you shall see (sailing alongst the coast) two steepe hommockes like Towers in the land, not farre one from the other: these are notable marks for to know the coast. When you are thwart of the eastermost, you may see the havens mouth of Corck, that lyeth in northnorthwest; within it is wide and broad, and goeth up into the and with a broad river. On the east side, somewhat within is a poynt, where lyeth off a ledge of rocke, which must be shunned. There over against on the west side, somewhat farre in, lyeth another point with an old ruined castle, there also lyeth off a showld; to the northwardes of it men goe about to Corck. Within that Castle lyeth a little tyde haven in a sandy Bay. Within the haven lyeth an Iland where men doe sayle round about, and at the south side thereof may ride. It is in this haven of Corck at lowe water, seven, eight or ten fathom deepe.

Corck.

A little without the east poynt standeth an old ruined Castle upon the low land, and somwhat further eastward, a square Tower in a valley. A leagues to the eastwards of the havens mouth standeth a Tower upon a high poynt, close to the water side, with ten or twvelve thatch houses by it

Moreover

Moreover, a league further east, by a smoot poynt, lieth a long rock growen about with greene, upon the east side of that poynt standeth a flat tower. Further, it is to the eastwards all lowe land, unto the poynt of Iochull.

Bellecotton Ile.

Foure leagues to the eastwards of Corck-haven lyeth an Iland called Ballecotton, within it men may ride for westerly and southerly windes, in foure, five, or six fathom. Corck and Iochull lye eastnorth east and westsouthwest, distant seven or eight leagues.

Iochull.

The haven of Iochull is a broad haven, where men must goe in at high water, by the eastlant it lyeth in northwest and northwest and by north. The west side is a sandy strand all alongst to the towne.

Chappell.

About a leage south & by west from the havens mouth of Iochull, lyeth a litt le iland called Chappell: under it on the east side is a good road. He that commeth before Iochull at a low water, may goe under that foresayd iland to ride there, and stay for the last quarter flood, then there is foure fathom water upon the bank. At the west poynt of the Havens mouth leyth a rocke within it, About halfe wayes to the towne standeth a friery, before it men may ride they may also edge over to the eastland. and then run up the river. Within it is three, foure, and five fathom deep. From the east side lieth a rane of rockes, at least halfe wayes over in the havens mouth, a little without the rocks it is at low water no more then five or size foote water, but a high water it is deepe enough,

Ardimore

Foure leages to the eastwards of Iochull, lyeth Dongarvan haven, betwixt both lyeth an out point; a little to the eastwardes of it standeth a high blacke Tower, called Ardimore, which may bee seen well foure leagues at sea, within it is a bay, which is a good roade for westerly windes in seven or eight fathom.

Dongarvan.

Dongarvan is narrow tyde-haven, the mouth of the haven is full of rockes, and at lowe water it falleth drye, men must goe in there at high water, and runne in through betwixt the rockes, it lyeth in northnorthwest, within it is deepe enough. The towne Dongarvan lyeth upon the west side of the haven. From Dongarvan to waterford are eight leagues.

G. qu in.

Within Dongarvan, northnorthwest landwards in, lieth the mountaine of Sleges, which men doe call the high mountaine of Dongarvan, or Cape de Quin, or Caray Quin, it shewed it selfe with three exceding high hommockes, farre above all other landes, thereabouts men may see it at sea alongst a great part of the south coast of Jreland.

When you shall haue that mountaine northnorthwest from you, and saile in right with it, you shall fall right with Dongarvan.

When you shall haue it north of you, and sayle in right with it, then you shall fall with Jochull; being northnorth-east, then you shall fall with Corck, but when it shall be n.w. and so run in, you shall fall with Waterford.

Of the tides and courses of the Streames.

In all these foresaid Havens maketh high water an e.n.e. & w.s.w. Moone, or a poynt later, according as they lye deepe within the land.

But at sea-board the coast in the offing, a n.east and s.w. Moone.

At the Mizanhead, C. Cleare, and the coast to the eastwards, a w.s.w. and e.n.e. moon maketh high water, within the Havens and in draught, a point later, to wit, east and by n. and west and by s. But in the channell a seaboard the land, a n.e. and s.west moone.

Without C. Cleare by the land, the flood falleth away e. and the ebbe west, but to the eastwards of C. Cleare e.n.e. and w.s.w.

On these south coasts of Ireland an east n. east and w.s.w. Moone maketh high water, within the Havens a poynt later, to wit, an east and by n. and west and by s. Moone: but in the offing a sea-board a southwest and northeast Moone.

Betwixt C. Cleare, alongst the Coast before Waterford, into the point of Carnaroort, the floud falleth alongst the coast e.n.e. and the ebbe w.s.w.

Of the Depths.

Betwixt C. Cleare and the Dorseys men may see the land in 58 and 60 fathom.

From C. Cleare to the eastwards unto Waterford, men may see the land in 45 fathom. The most part of the s. coast of Ireland men may see it in 35 and 40 fathom. In 35 fathom you shall not be farre from the land. Therefore come no neerer Ireland by night then in 40 fathom.

Courses and Distances

From the Sound of Blaskeys unto the Skellocke, the course is south 7 leagues.

From Dinglehaven unto the Skellockes, southwest and by south 8 leagues

From the Skellockes unto the Dorseys, southeast 7 or 8 leagues.

From the Dorseys to Mizanhead eastsoutheast 7 or eight leagues.

From Mizanhead to sheepeshead north, two great leagues.

From Sheepeshead to Beerhaven the course is north and by west somwhat westerly, scarce 2 leagues.

From Mizanhead to Beerhaven north and by west 5 leag.

From Beerhaven to the Iland Whidny the course is e.n.e. and northeast and by east 7 or 8 leagues

From the Dorseys to Silly southeast and by east 56 leag:

From the Dorseys to Cape de Finisterre is the course south and by east and south 173 leagu.

From Mizanhead to C. Cleare east and by south distant 7 leagues.

From c. Cleare to Croockhaven n.w. 5 leagues.

From c. Cleare to c. Veelo or Oldhead eastnortheast 13 leagues.

From cape Cleare to the Landsend of England southeast and by east 53 leag.

From c. Cleare to Silly southeast 47 leagues.

From c. Cleare to c. de Finisterre south 173 leag.

From Oldhead, or c. de Velho, to the haven of Kinsale, is the course north and by east 2 leagues.

From Oldhead, or c. de Velho to Corck northeast and by east 5 leag.

From Corck to Waterford the coast lyeth most eastnorth-east.

From c. de Velho to the Landes end of England southeast 45 leagues.

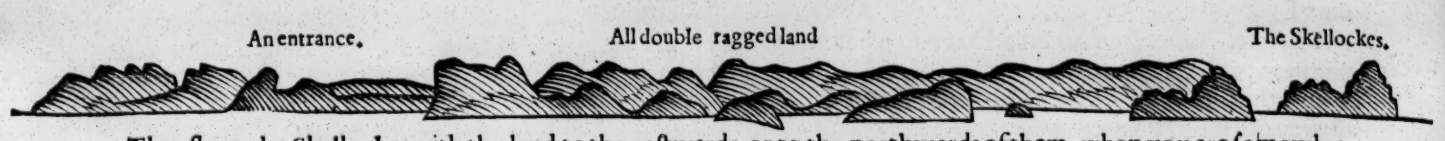
Heights.

c. clear lyeth in 51 degrees 12 minutes.

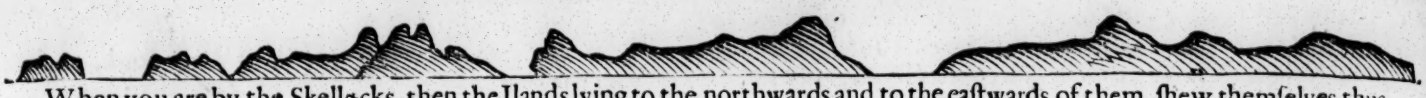
cape de Velho, or Oldhead lyeth 51 degrees 28 minutes.

How theſe Lands doe ſhew themſelves at Sea.

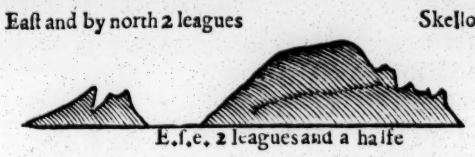
The Blaskeys, and the land to the eaſtwards of them, doe ſhew themſelves thus, when you faile from the Skellocks towards them.



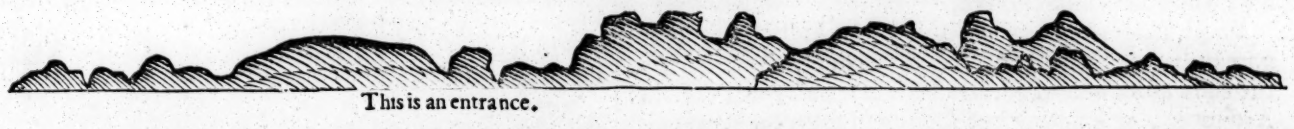
Thus ſhew the Skellockes with the land to the eaſtwards, or to the northwards of them, when you are ſomewhat to the northwards of them, and faile alongſt by them.



When you are by the Skellocks, then the Ilands lying to the northwards and to the eaſtwards of them, ſhew themſelves thus.



The Skellockes, being eaſt and by ſouth from you 3 leagues, ſheweth thus.



Theſe ilands lye to the ſouthwards and to the eaſtwards of the Skellockes, the land from thence eaſtward towards the Dorſeyes, is all high broken and very ragged land.

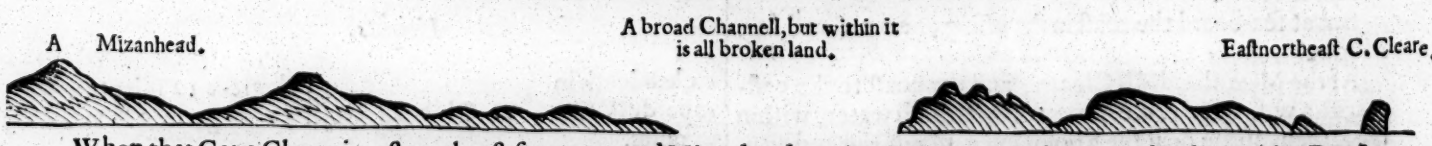
This iland lyeth betwixt the Skellockes and the Dorſeyes cloſe by the land.

Thus ſhew the Dorſeyes, with the Rocks, Bull, Kow, and Kalfe, which lye without them, they are to the ſouthwards of you.

This and the figure following belong at the AA one to the other.

When you are to the eaſtwards, or to the ſouthwards of Dorſeyes, they ſhew as is pictured out in theſe 2 figures here before. The eaſt end at B ſheweth almoſt like Cape Cleare, being eaſt from you, but it is a higher land.

Theſe two figures belong one to the other at the AA.



When that Cape Cleare is eaſtnortheaſt from you, and Mizanhead northeaſt and by eaſt, then is the land unto the Dorſeys in theſe formes, as is ſhewed in theſe two figures here before.

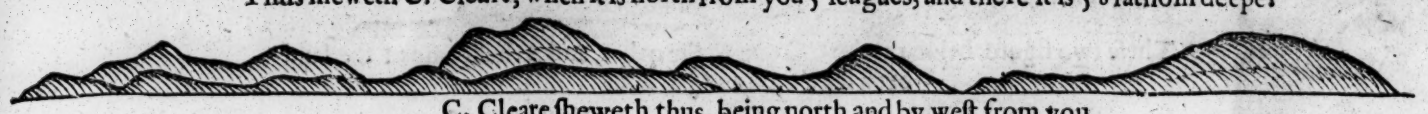
When that Mizanhead is northeaſt and by eaſt about two leagues from you, then ſheweth the land to the northwards of it towards the Dorſeys. And then may you alſo ſee the Iland of C. Cleare eaſt from you.

The forme of C. Cleare with the rock Faſtney.

Rock a little to the eaſtwards of Baltemore

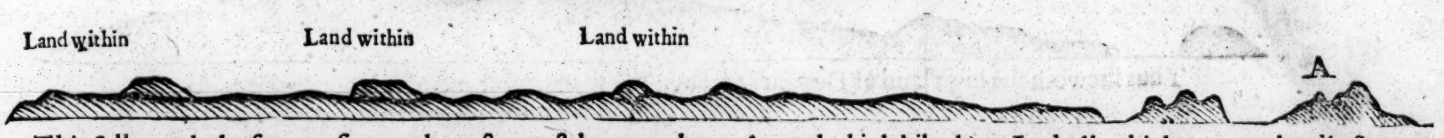
This belongeth to the figure going before the AA, one to the other, is the land to the eaſtwards of Baltemoore.

Thus ſheweth C. Cleare, when it is north from you 5 leagues, and there it is 58 fathom deepe.

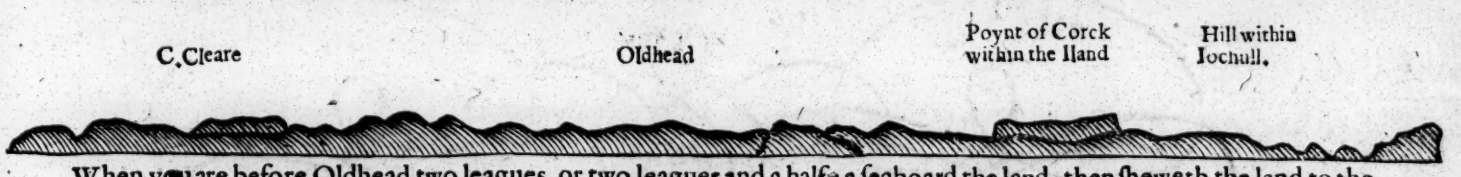


C. Cleare ſheweth thus, being north and by weſt from you.

The Cape Cleare, being n.w. 7, or 8 leagues off from you, ſheweth thus. If you then beare in north, you ſhall fall right with the Oldhead, and when you come neare the ſhore, you ſhall loſe ſight of the high land, and it ſhall ſeeme to be all low land.



This followeth the former figure, the eaſtermoſt hommockes at A are the high hils about Jochull, which you may hardly ſee when C. Cleare is n.w. from you 7, or 8. leagues off, they lye far within the land, and the clouds oftentimes hang over them



When you are before Oldhead two leagues, or two leagues and a halfe a ſeaboard the land, then ſheweth the land to the weſtwards unto C. Cleare, and the land to the eaſtwards of Oldhead, in this forme.

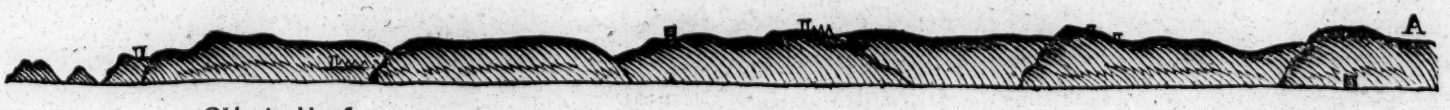
When the point of Roſſe is weſt and by north from you it ſheweth thus.

Thus ſheweth Oldhead when it is w.ſ.w. a halfe league from you, then may you ſee the Haven of Kinſale open

When Oldhead is weſt 2 leagues from you, it ſheweth in this forme.

The land a little to the eaſtwards of Kinſale ſheweth thus.

The land to the eaſtwards of Corck towards Jochull, ſheweth in this forme

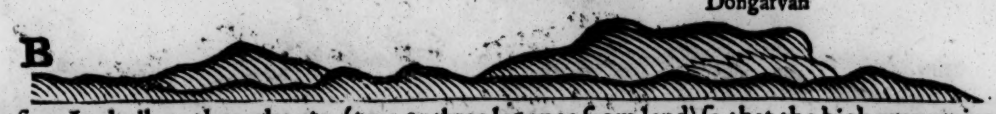


When you are to the eaſtwards of Corck, not farfrom the land, and that the harbours mouth doth begin to open, then ſheweth the land as is deſcribed in theſe two figures, at the AA, belonging one to the other, being neare the land it ſeemeth to be high land, but a far off (when you can ſee the high inner land, within Jochull over the cliffe land) it ſeemeth to be but low.

Theſe two figures belong at the BB, one to the other.

When

Dongarvan



When you are before Jochull, or thereabouts, (two or three leagues from land) ſo that the high mountaine of cape Quin be north and by weſt from you, then ſheweth the land thus, the double innerland is very high blew land, you may ſee it in cleare wether twelve or thirteene leagues off.

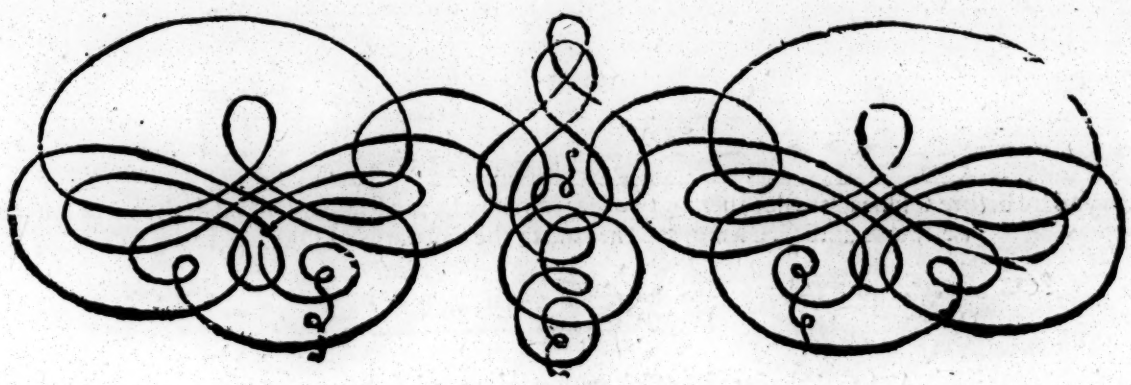
The high Land of Dongarvan.

Theſe two figures belong at the CC one to the other, and is the forme of the land betwixt Corck and Jochull.

Northnorthweſt.

The high land of Dongarvan ſheweth thus, being northnorthweſt from you.

Thus ſheweth the high land of Dongarvan when the weſtermoſt end of it is northweſt from you.



The second Part

The THIRD BOOKE

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

is contained the Deſcription of the Sea-coaſtes of France, Galliſſia, Portugal, and Spaine, from Heyſſant, to the Straites of Gibraltar: and vvith all the Flemmiſh and Canarie Ilands.

With Privilege of the high and Mighty Lords, the States Generall, for tvvelve yeares.

Printed at Amſterdam,

By Iacob Columne, on the Water, in the Fierie Columne, Anno M. DC. XL.

Les Costes Marines de Bretaigne Poictou Biscaya. Galisses. Portugalia et Hispania. depuis Heyssant jusques a l'. Estroicte de Gibraltar. per Iaques Colom

POICTOV.

BRETAIGNE

BISCAIA

GALISSE

Rivier van Bordeaux

Bayone

S. Sebastian

Bilbao

Castro

Laredo

S. Andero

Lianes

Rio de Sella

Villa Vicyssa

Samsoen

Avyles

Artedo

Luarca

Castropol

Ribadeus

C. de Ortegal

Corunna

C. de Finist

Oost pennarkes

De Seim

Cheminees

Heilsant

I. Oleron

I. S. Martin

I. Boelin

Heis

Virkamia

C. de Machichaca

Gion

Aviles

Arteda

Luarca

Castropol

Ribadeus

C. de Brilo

S. Cyprian

Viverus

Karyne

C. de Ortegal

Fontenne

Corunna

C. de Finist

Met Privilegie der E.E. H.H. Heeren Staten Generael voor twaelf jaren

35

Lieues d'Allemaigne 15 en un degre

Lieues d'Espaigne 17½ en un degre

Lieues Angl. et Franc. 20 en un degre

Pascaarte

Van Vranckrijck Biscaijen en Galissen, Portugal en Andalusien.

Van Heissant tot de Strate Gibraltar.

Nieulijckx Beschreven Door

Jacob Aertsz. Colom

PORTU GALIA

BISCAIA

Almeria

Salabrenna

Malaga

Salines

Buzema

Ceuta

C. de Puercos

Tetuan

Alcasar

Tanger

C. de Spartel

Arsila

Larache

Rio de Larache

Rio de Alarin

Rio de Tetuan

P. de S. Sebastiano

Rio de Gibraltar

Rio de Tarifa

Rio de Cadiz

Rio de Xeres

Rio de Lagos

Rio de Portimao

Rio de Lisboa

Rio de Setubal

Rio de Aveiro

Rio de Porto

Rio de Vigo

Rio de Bayona

Rio de Vilanova

Rio de Viana

Rio de Pontevedra

Rio de Villagarcia

Rio de Arosa

Rio de Muros

Rio de Corcubion

Rio de Camarinas

Rio de Malpica

Rio de Betanzos

Rio de Ferrol

Rio de Ribadeo

Rio de Rivadeo

Rio de Tapia

Rio de Navia

Rio de Cudeyo

Rio de Ribadesella

Rio de Villaviciosa

Rio de Gijon

Rio de Ribadesella

Rio de Llanes

Rio de Tina Menor

Rio de Bilbao

Rio de Pasages

Rio de Fuenterabia

Duytsche mylen 25 voor een graadt
Spaansche mylen 17 ½ voor een graadt
Engel. en Fra. mylen 20 voor een graadt

BRETA

Bacwant
Lesser Penies
Blanc bij
Noordhaegs
Zuydhaegs
Heysandt
Halman
Longuets oost
Longuets west
Conquet haven
Fenestiers
S. Mathieus cloester
S. Mathieus hoeck
Barbarens bay
Breswater
Lesou
Crodun
Boexbergh
Boldavit bay
Blanck-moins
Calengier
Schemine kallergen
Kymenessen
Boldavit
Fontenau
Vrische
Slaeplakens
Paiman
Odegiern
Wester Penmarker
West Penmarkes
Keiser
Breesondt
Keiserin Kaff
Les Seems
20
25
30
35
40
45
50
70

De Custe van
Bretaigne van Heysandt
tot Boelyn.
Door Iacob Aertsz. Colom.

Vannes
Auray
Virane
Hoeck van
't Meylandt
S. Tolme
Blauet
Morbeam
Araban
Quinperley
Gloylandt
Baerse
Graye
Cardinal
Isles aux
moutons
Ooster Penmarkes
S. Paul
Bel isle Boelyn

Duÿtsche mÿlen 15 voor een graadt Lieues d'Allemaigne 15 en un de
Spaansche mÿlen 17½ voor een graadt Lieues d'Espaigne 17½ en un deg
Engel en Fra. mÿlen 20 voor een graadt Lieues Angl et Franc 20 en un de

De Custen van Poictou
En Xantoigne vanden
Cardinael tot de Riviere
van Bourdeaux.

Lanan
Roche Bernard
S. Nahare
Les Pourceaux
Asserat
De Rivier Villaine
Croisick
Pierre Percé
Pierre men
Bassman
't Landt van Cellette
Bourgneuf
Chasteau
Bonges
De Grave
Olone
S. Nicolas
S. Hilaire
Noumoustier
Abdje
Armentiers
Bosch
Kunnicke Lege
Picquelier
La Four
Heis
Cardinael

oftes de Bre:
e ontre Heÿ:
& la Riviere
ourdeaux.

't Vervolgh vande
Rivier van Bourdeaux

Conac
Blaye
Roche le roux
Bourg
Dordoign flu
Eylandt
Vier huÿsen
Lermont
Castillon
Poullac
Mayse met de veinsters
Port Maran
Rochelle
Plom
Tour de Carel
Tour de four
Chevante flu
Doublet oste Duinen
Scrtroise
Duÿnen huÿs
Kasteel Chasteau
Bourdeaux
L. Jvdalenes yrck
Laverdin
Broadt Eylandt
S. Nazare
Soubise
S. Mosse
S. Jean d. Angli
Front
Steenbanck
Fort d. Prez
Fort S. Martin
S. Marie
Chaurcan
Isle de Re
S. Marcus Eylandt
Banjaert
Oester Vanck
Oleron
S. Denis
S. Pierre
S. Andre
Isle de Loyre
Silice
Chevy charde
Portus
Les Palcaus
Mammesande
Aeers
Marennes
Sales
Mortaigne
Talement
Keeck metre meulens
of Mesbie
Roian
Noorder eesels
Zuÿder eesels
Rivier van Bourdeaux
Corduan
Soulack binnen
Soulack op zee

Abber-
wrack

The fourn

Vshant.

Hagels.

Blankbay.

orther
gels.

Alman

The ſecond part of the Fierie Coumne.

THE THIRD BOOKE,

Of the

WESTERN NAVIGATION

Gontaining

The deſcription of France, Biſcay, Gallisſia, Portugall, and Algarve, from Heyſſant to the Straights of Gibraltar

The firſt demonſtration.

Wherein

Are shewed the Coaſts of France, from Heyſſant to the River of Bourdeaux.

FRom the Iland Ile de Bas unto the Fourne, (the outermoſt or weſtermoſt end of the maine land of Britaigne) the courſe is weſtſouthweſt, and weſt and by ſouth thirteene leagues. About halfe wayes betwixt them both lyeth Obbevrack, or Abbberwrack.

Abberwrack

About a league northweſt without the rockes of Obbevracke or Abberwracke lyeth a rane of Rockes under water. They that by night will ſaile or turne to windwards from the Fourne or towards the Fourn, let them not come thereabouts nearer the land then in 45 fathom.

The fourn

A league to the eaſtwards of the Fourne, and all alongſt the coaſt even unto the Fourne, lye many long black ragged Rockes, at many places to looke to like Villages, theſe are called the Ovens, within them on the maine land (which is not very high) men ſhall ſee (ſailing alongſt by them) many white ſand-bayes, and here and there ſome little houſes, whereby the foreſaid land thereabout is very good to bee knowne.

Vshant.

The Fourne and Uſhant lye Weſtſouthweſt and Eaſtnortheaſt diſtant two great leagues. Uſhant ſheweth it ſelfe at ſea at the ſouth end low, and at the north end going up ſloping, upon the midſt of it ſtandeth a little flat Tower, by which markes it is good to be knowne.

For to ſaile through within Uſhant, the courſe from the Fourne to S. Matthews point is ſouthſoutheaſt foure leagues. At the poynt of the Fourne lye two rowes of little Rockes, and to the ſouthwards of them alongſt the Coaſt lye three other heaps of rocks, each of them about an Engliſh mile one from the other: runne alongſt within two Cables lengths by the foreſayd rockes at the poynt, which is much nearer the eaſt ſide, or the maine land, then Uſhant, for to ſhun the norther Haghels, which doe lye betwixt Uſhant and the foreſaid rockes or Ovens, or elſe if you keepe S. Mathewes Abbey in the low valley to the eaſtwards of Conoort, and ſaile ſo right with it, then you run through neereſt the eaſt ſide, and in the middeſt of the channell, betwixt the foule ground and the Rockes, untill you come thwart of Blanck-bay, or neare Conquets oort, there ſtandeth a mill upon the high land alone, when it is eaſt from you, then the ſouther Haghels lye weſt and by north from you, and the norther Haghels northweſt and by weſt: there is alſo a high flat peece of land, a little to the eaſtwards of the Abbey of S. Matthewes, the top of it being even and plaine, like unto a long plaine houſe, when that commeth even without the poynt Conquets oort: and the foreſaid mill be eaſt and by ſouth, and eaſtſoutheaſt from you, then lye the north Haghels weſt and by ſouth from you, ſo that when the foreſaid mill is eaſt thwart from you, then are alſo the Haghels Weſt thwart from you. When Halman or Hayman hill (that is a high rock lying at the eaſt end of Vſhant) commeth over the northweſt end of the northermoſt Mollens, the French called Cheminees, then are you alſo thwart of the Haghels.

Hagels.

Blankbay.

orther gels.

Halman

Hee that muſt turne to windwards from the Fourne towards Conquet, or S. Matthews point, let him make uſe of theſe markes: In the point of Conquet haven, or Conquets oort, are two valleys, the one is great, that is the weſtermoſt, and one little, that is the eaſtermoſt, in manner as is here portrayed. Conquets-oort.

S. Matthews Cloyſter Conquets oort

When you runne over to the caſtwards towards the land, and that the Abbey of Saint Matthewes commeth a Capſtone barres length to the eaſtwards of the ſmalleſt valley, according as is ſhewed in this figure, then it is time to caſt about: and when you runne over to the weſtwards towards Uſhant, and that the foreſayd Abbey of S. Matthewes commeth a little without the poynt of Conquet Haven, you muſt alſo caſt about, for when the foreſayd Abbey commeth two ſhippes lengths without the foreſayd poynt then are you cloſe by the Haghels. The Norther and the Souther Haghels lye about a ſhot of a caſt peece diſtant one from the other.

Two or three Cables lengths thwart from the poynt of Conquet haven, or Conquets oort to ſeawards, lyeth a ſuncken rock, which with a ſpring tide commeth above water, called the Vintner, by the French le Bell. For to avoyd it comming from the northwards, or from the Fourne, and being come from the foreſaid markes (of S. Matthews Abby in the great valley of Conquets oort) unto cloſe by Conquets oort, then run cloſe about by it, alongſt within a Cables length of the poynt, or keepe the Abbey of S. Mathewes even without the poynt of Conquet oort, and ſo cloſe about it, within a cables length, as before is ſayd, and then you ſhall leave the Vintner a Cables length or two on the ſtarboard ſide of you, and can take no hurt of it. The Vintner.

When the little Church upon the poynt of Conquets-oort is eaſt from you, then is the Vintner weſt right thwart from you, or elſe when that the Souther houſes of Conquet, beginne to come without, or to the poynt of Conquet, then you have alſo the Vintner upon your ſide, weſt and weſt and by ſouth from you, a little ſhot of a caſt peece.

If you ſayle into Conquet haven, then runne about the point within a cables length, as is before ſaid, untill you ſee the haven open, then you come againſt the Feneſters, which are rockes that lye off about a Cables length from the Eaſt Conquet haven. Feneſtiers.

land of Conquet-haven under water. For to avoyd them, runne alongſt by the norther ſhoare, untill you come within the Haven. Betwixt the Feneſtiers and the blanck Moines (that are rockes by Saint Matthewes poynt) is a good Road under the Abbey of S. Matthewes, as well for them that are bound to the northwards as to the ſouthwards. If you will goe into this road comming from Conquets oort, then run right with the blanck Moines, untill that the Abbey of Saint Matthewes be eaſtſoutheaſt from you, ſaile then towards it untill you come before the Abbey, and anckor there in 6 or 7 fathom.

Blanck Moines

About a league to the eaſtwards of S. Matthewes poynt, towards Breſt, lyeth a ſuncken rock, about halfe a ſhot of a caſt peece from the north ſhore. If you will ſaile into Breſt-water, then goe from S. Matthewes poynt away eaſt and by ſouth, and eaſtſoutheaſt, and keepe the north end of the Southermoſt Mollens, without S. Matthewes poynt, ſo long, untill that the mill upon the north-land come to the northwards of the trees, then you ſayle alongſt to the ſouthwards of the foreſayd rock, and ſo doing, you can take no hurt of it; but if you bring the ſouth end of the Mollens neare or to S. Mathewes poynt, you ſhall not fayle to ſayle upon it.

For to ſayle to the northwards of the foreſayd Rocke, you muſt runne from S. Matthewes poynt alongſt by the North-land, and keepe the ſouthermoſt Mollens hidden behinde the great Rocke that lyeth off from S. Matthews poynt, and ſayle then right with the weſt poynt of Bartrams bay, untill that the foreſayd mill ſtanding upon the North land, commeth to bee northweſt and by north from you, and the trees ſtand northnorthweſt from you, then ſhall you be paſt the foreſaid Rocke; but to runne alongſt to the ſouthwards of it, is beſt and broadeſt. For to ſayle forth alongſt to Creſt (being paſt the foreſayd rock) you muſt run forth within two cables lengths alongſt by the north ſhoare. A little within the eaſt poynt of Cordon, or Claeſdownes, lyeth a rane of Rockes, about the middeſt of the channell in the mouth of Breſtwater, which at low water lye above water, and at high water are under water, called the Baginne, you may runne alongſt on both ſides of it, but to the northwards of it, is beſt; when the ſouth poynt of Breſtwater commeth over the poynt of Crodan, then are you thwart of the foreſayd Bagyne, which lyeth about two cables lengths from the north ſhoare, runne alongſt to the northwards of it: When the Breſt commeth without the poynt, ſayle then ſo right to it, you muſt anckor there with an anckor to ſeawards in eight or nine fathom, and with a cable a ſhoare faſt on a tree: When you come within the Bagyne, you may edge up to the eaſtwards, or to the ſouthwards before the river of Landerneau or Lefou, and anckor there under the ſouth land, in ten, twelve, or thirteene fathom, before the little towne old Croidan. Breſt-water, or the river of Landerneau, lyeth in moſt eaſtnortheaſt, and it is Pilots water, he that is bound in there, may take a Pilot to bring him in where hee deſireth to bee: It floweth there with an ordinary tyde, three fathom up and downe, a ſouthweſt and by weſt, and northeaſt and by eaſt moone maketh there full ſea.

Baginne

Lefou

If you come to anckor within Breſt, you muſt pay for ankeridge ten ſoubs, and for it you ſhall get a ticket of freedome. If it ſhould happen that you ſhould looſe your ſhippe upon Britaigne, you might therewith challenge your goods, elſe they are unfree.

Bartrams Bay lyeth about two leagues to the eaſtwards of S. Matthewes poynt, a little league paſt the foreſayd ſuncken rock, there is good anckoring for a north, and northeaſt wind in 10 and 11 fathom.

Bartrams. Bay.

Over againſt Bartrams bay lyeth Croidan or Claeſdownes from *S.* Matthewes poynt, ſoutheaſt diſtant about 3 leagues, it is a great bay. For to ſayle from S. Matthewes poynt to Croidan, you muſt keepe the ſouthermoſt Mullens even without the black Moines (that are the Rockes without S. Matthewes poynt) and go away eaſt and by ſouth, and e.ſ.e. untill you come before the bay, and may ſee open into it, then you ſhall ſee a chappell, or little Church ſtand upon a chindle, run in right with it, and anckor thereabouts, in 6, 7, 8, 9, or 10 fathom, there is the beſt road.

Croidan

The Mullens are the rockes which lye there to the ſouthwards of Vſhant, and to the weſtwards from Saint Mathews poynt. Betwixt them and Vſhant lyeth a channell northeaſt and ſouthweſt through, which is indifferent large and broad, and deep enough, there remaineth at low water 6, and 7, fathom water. He that commeth from the northwards, and cannot ſaile a weather of Vſhant and the Mullens, by reaſon of the flood may run through here, or he that commeth out of the ſea, and with northerly winds, cannot ſaile a weather of Vſhant, may with a floud run through here, and ſo further his voyage, when men runne through here, either in or out, and keep the middle of the channell betwixt both lands they can take no hurt.

Mullens

From S. Mathewes point to the race of Fontenay, or the Keyſer and Lavender, the courſe is ſouth and by eaſt five leagues, betwixt them both lye divers rocks, whereof men muſt take good heed, as the Hen with the Chickens, the Collier, the Falconers, Scheminckelborrowes and other more. The Hen with the Chickens, and the middlemoſt Falconer or Foukeniffe, lye from S. Mathewes poynt ſ. e. & by eaſt diſtant a league and a halfe, but the Collier lyeth from S. Mathewes point ſ.ſ.e. alſo a league and a halfe.

Henne Chicken

The Falconers, or Foukeneſſen, lye from the weſt poynt of Croidan about w.ſ.w. an Engliſh mile. The innermoſt or ſouthermoſt Falconer lyeth from the northermoſt. ſ. ſ.e. about a halfe league, or two ſhots of a caſt peece, and from Croidan ſ.w. and by ſouth, and is covered at high water N. n.e. a cables length from it, lyeth another ſuncken Rocke, which at low water may euen be ſeene. To the weſtwards of the northermoſt Falconer lyeth alſo a ſuncken rock which at low water may even be ſeene.

Falkons

The Falkons thermoſt Falconer

The Hen lyeth from the Falconers w. ſ. w. about 2 cables lengths, or a ſhot of a caſt peece, it is a round ſharpe rocke, it is round about it deepe and cleane, in 6 and 7 fathom. The Chickens are two ſharpe little rockes, which at low water may even be ſeene, and lye about the ſhot of a Baſe northnorthweſt from the Hen, and weſt from the northermoſt Falconer.

The Hen Chicken

The Scheminckelbroughs lye to the ſouthwards of the Falkoners, men may run through betwixt them in ten fathom, to the point of Croidan, there is good road and ankor ground.

Scheminckelboroughs.

If you will ſaile from S. Mathewes point to the Race of Fontenay, you muſt goe away ſouth and by eaſt, and bring the mill of Feneſtiers, which ſtandeth upon the eaſt point of Conquet haven, over the poynt of Saint Matthewes, a little to the weſtwards of the Abbey, and keepe them ſo ſtanding ſo long as you can ſee them, and you ſhall not come to neare the foreſayd Rockes, to take any hurt of them. When as then you come to the Keyſer and Keyſerinne, firſt give the Keyſer a birth, becauſe of ſome ſuncken Rockes which lye off from the Eaſt ſide of it under water. From the ſouthweſt ſide of the Lavender runneth off a foule ledge Rockes, called the Calfe, there the tide falleth very ſtrong over it, with very great rippeling. This Channell of the Race of Fontenay, lyeth through betwixt the Keyſer and Lavender ſ.ſ.w. and n. n.e. He that will ſayle through here, muſt be very careful to caſt his tides well, for it runneth moſt thwart over this race, ſo that with a ſouthweſt wind, and an outfall or ebb, and alſo with calmes, it is very dangerous to come into this Race.

Keyſar Lavender Race of Fonteney.

A little to the ſouthwards of the Keyſer, lieth the eaſt end of the Seames, and lye from thence at leaſt three or foure leagues w. n. w. into ſea. A great league northweſt from the weſt point of the Seames, lyeth a ſuncken rocke, whereof men muſt take heed.

Seames

And weſtſouthweſt about two leagues from the Seames, lyeth a row of rocks, like a bancke, whereupon it is not deeper then ſeven fathom, but betwixt the rocks and the Seams, it is 50 fathom deepe.

Betwixt the Seames and Vſhant the broad ſound lyeth in e.n.e. to S. Mathewes poynt, and from *S.* Matthewes poynt w.ſ.w. 5 leagues into ſea.

Broad-ſound.

To the eaſtwards of Fontenay, or the Lavender, lieth the Frieze Bay, there men may ankor for a ſoutheaſt & eaſt ends, in good ancker ground.

Frieſe bay

To

Idavids y.

To the eaſtwards of the Frieze Bay, lyeth Boldavids Bay a broad deepe ſound, lying into the land eaſtnortheaſt. At the eaſt ſide of that Haven lye two little Ilands or Rockes, where men may anckor round about them, and lye ſheltred for all winds.

Oldyarn

From the Race of Fontenay to the Pennes, the courſe is ſoutheaſt about nine leagues, betwixt them both lyeth Oldyarne, a good Haven, about five leagues eaſtſoutheaſt from Fontenay, thwart before the entry of it lyeth a bancke where men may runne about it on both ſides in ſix fathom.

The ſouth poynt of this Haven is flat, therefore run in alongſt by the north poynt, there is at low water not leſſe then three fathom depth. From Oldyarne to the Pennes it is ſ. e. and by ſouth.

If you will anckor before Port Kapſtand, you muſt anckor in twelve or thirteene fathom, before the village that ſtandeth upon the high land, about halfe wayes betwixt the point of the Race, and the great ſand-bay of Oldyarn, where the little ſharpe Tower doth ſtand, the poynt of the Race ſhall then lye from you about northnorthweſt, and you ſhall then lye a great halfe league from the land, further off from the ſhoare it is rocky and foule ground, as ſome ſay. There have ſome nevertheleſſe come to anckor there by night in three or foure leagues from the ſhoare in five and twenty fathom, but have not received any hurt neither of cables nor anckors.

The weſt end of the Seames, and the Pennes, lye ſoutheaſt ſomewhat ſoutherly, and northweſt ſomewhat northerly diſtant about 13. leagues.

Sheete.

The knowledge of the land betwixt Fontenay and Oldyarne, are two round hilles, which men doe call the ſheetes, or Slaeplakens, to the weſtwards of them ſtand two milles. It is a very ragged poynt, and by theſe foreſaid markes very good to be knowne. Men may ſee them without the Seams in 55. fathom.

From Oldyarne to the Pennes lyeth the coaſt ſoutheaſt & by ſouth 5. leagues.

The Pens.

The Pennes are very good to bee knowne, for him that hath ſeene them once: upon the ſoutheaſt end ſtandeth a thick flat tower; a little to the weſtwards of it ſtandeth a ſharpe tower, and ſomewhat more to the eaſtwards againſt the high land, ſtandeth a village to ſee to like a caſtle, upon the eaſt ſide thereof ſtandeth a flat Tower, and there cloſe to the land lye two great rocks.

The Pennes lye off from the maine land, ſoutheaſt two leagues into the ſea. For to ſaile in there, you muſt come in there from the eaſtwards, and run alongſt by the ſtrand of the maine land, leaving all the Rocks on the larboard ſide, untill that you come to a great rock, which you muſt leave on the ſtarboard ſide, and runne about to the ſouthwards of it (being paſt it, edge within it up towards the Northweſt, and you may anckor there a little within. in three fathom at low water, lying there, you can ſee no ſea, but a high water the ſea commeth very much tumbling in through the Rocks: You may goe away from thence at high water ſoutheaſt through the Rockes into ſea, but you muſt take very good heed, becauſe it is there full of Rocks, whereof ſome are above water, and ſome under water. Without the foreſaid great Rock in the comming in of this Haven, it is at leaſt ten fathom deep, ſo that for need men might well ſave a great ſhip there.

Glanons Glenant.

From the Pennes to the Glannons or Glenant, the courſe is ſ. e. with that courſe you ſhall run alongſt to the ſouthwards of them. Within the Glanons lyeth a Haven, called

Bindet.

Bindet, at the eaſt poynt of that Haven it is full of rocks. For to ſaile in there, you muſt take heed unto theſe marks: there ſtand two milles farre within the land, bring the caſtermoſt of the 2. over a little caſtle that ſtandeth upon a point within the Haven, and run in, keeping them ſo north and northeaſt and by eaſt in, and then you cannot take hurt on neither of both ſhores, and being come within the haven, anckor before the towne.

A league ſouthweſt from Gloyland or Glenant, by the Dutchmen, called the eaſter-Penmarkes, lyeth a great Rock under water, but is good to be eſpied, in regard the ſea alwayes breaketh upon it; as well within as without this Rock, it is forty fathom deepe.

When you come off from the Pens, with an e. ſ. e. courſe, you ſhall runne alongſt farre enough to the ſouthwards of it. About two leagues to the eaſtwards of Glenant, lye the Muttons Ilands of Muttons, by the French called Iſles aux Moutons, you may ſaile through betwixt them and the main land, unto Groy or Blavet, alſo you may anckor within them in ten or twelve fathom, betwixt the land and the foreſaid ilands, which are cleane upon the north ſide.

Betwixt the iland Mutton and Glenant lyeth a rock, for to avoyd it (for them which will ſaile through there betwixt them) they muſt leave one third part of the channell towards Glenant, and the other two third parts towards Mutton, and then they may boldly run through there without feare.

From Mutton to the Iland Groy, the courſe is eaſt and by ſouth, upon the outer ſide of Groy ſtand 3. or 4. milles, the Groy. eaſt end of it goeth ſteepe downe, and the weſt end ſloping and flat down, thereby it is good to be known. Under Groy is good anckoring for a ſouthweſt winde in ſix or ſeven fathom: Under the northeaſt poynt alſo is a good road for a w. ſ. w. and northweſt winde, there is very good Anckorground. At the ſouthweſt end runneth off a foule ledge, whereof men muſt take good heed.

Within the iland Groy lyeth the Haven of Blavet, which Blavet. lyeth in about northweſt in foure and five fathom. Upon the weſt ſide of this Haven ſtandeth a high ſharpe Tower, called Quinperly, from the eaſt poynt runneth off a great ledge of rocks, called the Baers, within it on the eaſt ſide of the entry of the Haven lye two ſuncken Rocks, alſo on the weſt ſide a Rock with a hole, which at halfe ebbe is uncovered, whereof men muſt take very good heed in the comming in; Men run in alongſt by the weſt land, for to eſchew the foreſayd ſuncken rock and foule grounds. The marks for to ſaile in there are theſe, there lyeth a little iland within in the middeſt of the Haven, which you may ſee when you are without the Haven. To the eaſtwards of that little Iland upon the maine land, ſtandeth an Abbey; bring that Abbey right to the eaſt poynt of the Haven, which lyeth within the Baers, and ſaile right in with it, untill you come thwart of the eaſt poynt within the Baers, and runne in about by it: being within it, there it is wide and broad, you may anckor there before the foreſaid little iland in five or ſix fathom, there it is at low water three or foure fathom deepe, or elſe men commonly runne in about, by the poynt, untill they come in the oaze.

From the Pennes unto Beſl-Ile, the courſe is eaſt ſoutheaſt one and twenty leagues, but from Groy to Bell-Ile it is ſouthſoutheaſt five leagues. Bell-Ile hath at the northweſt end a ſteepe poynt, lying out with a great ſaddle, thereabouts ſtand alſo ſome little houſes, and the end goeth very ſteepe downe.

Road to know Bell-Ile.

When as Bel-ile lieth n.n. e. from you, the weſt end ſheweth it ſelfe in three parts: the weſtermoſt whereof is a great rock, which floweth at a very high water almoſt under, at the eaſt end there divided it ſelfe off alſo a great rock: by theſe foreſayd marks it is indifferent well to be knowne, men may ſee Bell-Ile out of the ſea in 55. fathom. At the ſouth ſide lye off many rocks and little ilands.

Road under Bell-Ile.

If you will ſeeke a roade under Bell-Ile, then you muſt give the Northweſt end a good birth, off from it lyeth a ſuncken rock under water, a good wayes from the land: being come within it, ſayle then within two Cables lengths alongſt by the land, within a Baſe ſhot about by the North poynt, untill you come before the village with the little ſharpe tower, called Pauls, there ſtandeth a caſtle upon the poynt to the weſtwards of the foreſayd little tower, anckor within that poynt in nine or ten fathom, there you ſhall lye landlockt for a ſouth, ſouthweſt and northweſt wind. If it blow more northerly, you muſt ſhift, and runne before the eaſt end (which is about halfe a league broad) and ankor there in ten or eleven fathom. This iland lyeth about ſoutheaſt and northweſt, according as the winde bloweth, men doe ſhift there from one road to another, it is there every where good riding.

Within the Iland Bell-Ile, to wit, betwixt Bell-Ile, and the maine land lye many little ilands, where at divers places men may ſayle through to the Rivers of Vannes, or Morbeam, Roche Barnard, and the river of Nants, called the Loire.

Of theſe ilands are three the principall, the eaſtermoſt is
Cardinall. called the Cardinall, the eaſt poynt whereof, and the eaſt poynt of Bell-Ile lye one from the other directly eaſt and by north, and weſt and by ſouth about 4. leagues. The middlemoſt is called by ſome alſo the Cardinall, or elſe together with the eaſtermoſt the Cardinalls. This hath a good Haven on the north ſide, going in by a great Rock. From the n. w. poynt of the Northermoſt or weſtermoſt, runneth a
Sandbank ſandy ſtrand unto the maine land, againſt the poynt betwixt Blavet and Morbeam, ſo that men cannot ſayle there betwixt that and the maine, but at high water it is moſt covered, and at low water it lyeth moſt drye, at low water men may goe over there one foot from the Iland to the mayne Land.

He that commeth from the weſt, and is bound to Morbeam, Roche Barnard, or other places thereabout, muſt run to the ſouthwards of it, and he will not ſaile about to the ſouthwards of Bell-Ile, he may ſaile through betwixt the northermoſt and the middlemoſt iland, and alſo he may ſail through betwixt Bell-ile and the foreſayd ilands, about to the eaſtwards of the Cardinall. The channell there betwixt them both, is about a league broad and cleane, it lyeth through e.ſ. e. and ſ.e. and by eaſt, men may run alongſt by the Cardinals either by night or by day, in 8. 9. and ten fathom, all cleane ſandy ground.

For to ſayle through betwixt the weſtermoſt, which is faſt at the north end with the ſtrand to the maine land, and the middlemoſt iland, the courſe is from the n. w. end of Bell-Ile e. n. e. A little from the eaſt end of the foreſaid weſtermoſt iland, lieth a great round rock, which you muſt leave on the larboard ſide, and run alongſt by it, within two or three Cables lengths, and then you ſhall leave on the ſtarboard ſide to ſeawards of you a great many rocks, ſome above and ſome under water, which lye towards the other ilands, which you muſt give a greater birth too, then to the foreſayd great rock. From this foreſayd channell to the river of Morbeam, or S. Jolme, the courſe is n.e. or n.e. and by e. or els if you run about to the eaſtwards of the Cardinal, and are bound to Morbeam, then goe away from the eaſt poynt of
Morbeam the Cardinall, firſt n. w. and n. n. w. and you ſhall have then in that fareway 8. and 9. fathom depth, go then by little and litle more northerly right with the point, which lyeth to the weſtwards of S. Jolme, there runneth off the ſaid poynt of S. Jolme, a ledge or riffe of Rocks almoſt a halfe league into ſea, which you muſt leave on the ſtarboard ſide, and runne into the weſtwards of it, betwixt the ledge and a little Iland which lyeth e.ſ.e. from the weſt point, and is faſt to the foreſaid weſt point, with rocks and foule ground, ſo that you cannot ſayle in alongſt to the weſtwards of it, nor through between them: ſo ſoon as you ſhall be entred within the foreſaid little Iland, you muſt give the weſt poynt a birth, and run in alongſt by the eaſt ſhoare, which is flat, and lieth from the tower of S. John to the River of Vannes n w. and ſ. e. but you muſt be ſure to reckon your tide well in this Channell, for it runneth in and out the River of Vannes ſo ſtrong that you cannot ſaile in with an ebbe, although it blow a ſtorm, likewiſe doth it to the contrary with the flood, therfore you muſt ſayle in there with a ſtill water. At the middle poynt where the river doth devide it ſelfe in two (whereof the one runneth to Vannes, and the other to Auray) lye many rocks, the moſt part under water, which you leave on the ſtarboard ſide when you are bound to Morbeam or Auray, and on the larboard ſide when you are bound to Vannes when you are come ſo far within, that the tower of Morbeam is weſt from you anckor there in the middeſt of the Haven, in nine fathom, and then ſhall Auray the innermoſt little tower lye northnorthweſt from you, and the other litle Tower north and by eaſt, but the poynt of Mayland eaſtſouth-eaſt. The weſt ſhoare thwart of it is very ſteepe, but eaſie and ſoft, you can take no hurt of it, although you ſayled right againſt it.

The eaſt point of the Cardinall, and the entring of the Haven of Morbeam lye northnorthweſt and ſ.ſ.e. one from the other.

Roche Barnard. From the eaſt poynt of the Cardinall to the River of Roche Barnard, the courſe is right northeaſt: there lyeth a little Iland about halfe wayes betwixt the Cardinall and the foreſaid river, or rather nearer the Cardinall then the River (for when men are by the River, they can but even ſee the foreſaid little Iland) men runne with the foreſaid courſe of northeaſt cloſe alongſt to the weſtwards of that little Iland, and ſhall fall a little to the northwards of the river run then within a Cables length alongſt by the ſhoare unto it, untill that the river doe open it ſelfe, and then ſaile in amids the channell, and give the rocks a birth that lye at the eaſter ſhoare. Being come within the rocks, you may anckor there, or elſe ſaile on againſt the ſhoare on the ſtarboard ſide, and ſo may ſave ſhip and goods without anckor or cable, if there ſhould be ſuch need. At low water with an ordinary tyde, there is about eleven, and with a ſpring nine foot water; with an ordinary tide it floweth there about a fathom, but with a ſpring two fathom up and downe: the entring of the river lyeth in eaſt and by ſouth. A little to the eaſtwards of the rivers mouth, lyeth a great rock, which at high water is covered.

Hee that commeth from the River of Nantes, and is bound to Roche Barnard, and is not well acquainted there betwixt both, let him runne ſo farre to ſeawards of the Cardinall (when hee is to the weſtwards of the Four) untill that hee run about a ſeaboard of that foreſayd little Iland (lying halfe wayes betwixt the Cardinall and the River of Roche Barnard) then goeth he ſurely cleare of all the foule ground and other dangers, men may ſayle cloſe alongſt by it to the weſtwards, but to the eaſtwards of it lye many Rockes and ſhowlds.

Hee that will ſayle alongſt to the eaſtwards or to the Northwards of it, muſt leave about two third parts of the water to the Iland, and one third part towards the land, and ſo runne through betwixt them, but muſt looke out well.

Betwixt the rivers of Roche Bernard and Nantes, lyeth Croſwyck
Old-downes, Croiſill, or Croſwyck, and Poelgem. Croſwyck hath two poynts, within the northweſt point lyeth the great village of Croſwyck, which hath a thick tower, & there is a great indraught like a haven, where men may goe to anckor in five, ſix, or ſeven fathom: to the weſtwards of it ſtandeth alſo a flat Church upon the high land. The land of Old-
Old-downes downes lyeth a little to the northwards of the Church. Poel-
Poelgem gem is a village to the eaſtwards of Croſwyck, with a high ſharpe tower.

About two leagues from the land ſouthweſt and by ſouth from Croſwyck, and weſt and by north northerly from the e point of Poelgem, lyeth a great bank, called the Four, which
The Four. at ſome places falleth dry at low water, and lieth from Bell-Ile neare about e. and lyeth the longeſt way ſouthweſt and northeaſt:

If you will ſaile from Bell-Ile to the river of Nantes, then
For to ſayl into the River of Nantes. goe away from the e. end of the Cardinall, or from the eaſtermoſt rocks that lye off from the Cardinall, directly e.n.e. towards the weſt poynt of Croſwyck, for to ſaile a wether of the foreſaid Four, ſo long untill it begin to ſhowld, and that the ſharp tower of Poelgem commeth againſt the higheſt of the eaſt poynt of Croſwyck, then you runne alongſt to the northwards of the foreſaid banck, goe then e.ſ.e. or according as the wind is, e. and by ſouth, and e.ſ.e. on to the Rock with the hole, called Pierre-perce, but ſo that you come not
Pierre-perce. very neare (at low water) the land ſomwhat to the weſtwards of Poelgem, for it is not cleane alongſt by it. Betwixt the Four and the point of Croſwyck it is in the fareway 8. 9. and ten fathom deepe.

From the point of Poelgem eaſtwards lye ſome little Ilands and rocks, which are very foule, come not very neare them, nor the ſhoare thereabouts. If it ſhould happen that you ſhould turne to windwards, for at low water there falleth many of the rocks dry, when you come neare the rock with the hole) then run alongſt to the northwards of it, and run in very cloſe by it, leaving it on the ſtarboard ſide of you for to avoyd the foule grounds, which lye off from the poynt of Poelgem towards this rock. Cloſe alongſt by this rock it is 4. fathom deepe. Being paſt this Rock with the hole, then runne all alongſt by the north ſhore, unto S. Nazare in 3. or 4. fathom at low water, but you muſt take heed of a rocky poynt, ſomewhat to the weſtwards of S. Nazare,
S. Nazare. the markes thereof are theſe: There ſtandeth a mill upon the

the high land, somewhat farre within the land, when that commeth over a countrey-mans house, which standeth below by the river, then are you thwart of the rocks, being past them, keep yet the north shoare, and runne alongst by it, untill you come within the poynt of S. Nazare, and anckor there in six or seven fathom. In the middest of the river betwixt the foresaid rocks with the hole, and S. Nazare, lyeth a row of Rocks, called Les Porceaux, these come at halfe tyde above water: Because of them, and also more other showlds, lying in the river, you must run all alongst by the north shore, as is before said.

Les porceaux

Somewhat within S. Nazare upon the north land standeth a sharp tower, when that commeth without the south land, then you cannot take hurt of the foresayd rocks, run alongst to the northwards of them, a little to the eastwards of them lyeth another showld of Rocks, where men may run about the eastwards of it with great shippes, it is there very showld water alongst to the point, being within the poynt, men may anckor, as is said, in 6, or 7. fathom. To the eastwards of Saint Nazare lye two other villages, and there betwixt these Villages it is very showld, and stony ground, there men must borrow over the souther shoare, but when you are halfe wayes to that eastermost Village then you may well sayle right on with the poynt of the Village, untill you be past it, but against that eastermost Village on the south side, upon the poynt, lyeth a banck, called Pynbuf, which lyes at least halfe wayes over in the River, but men may run through betwixt the poynt and this bancke in five or six fathom, this is the road for shippes that are bound out to sea.

Pynbuf

A league further in, in the middest of the river lye two stony banks in the fareway. At Pelerin is the lading place, two leagues from Nantes, where the good is brought off with Lighters from the ships, but from S. Nazare to Nantes, or Pelerin, it is Pilots water, which men do commonly take in, by the above named sharp tower, called S. Nazare, where men (when they are within it) may ankor in 10. or 12 fathom, and stay for a Pilot.

Pelerin.

S. Nazare.

For to run into sea from S. Nazare, alongst to the southwards of the rock with the hole, you must run first alongst by the north shoare, as is before said, untill that you come without the second poynt of the River, edge then off from the north land to the middest of the River; and sayle a good wayes about to the southwards of Pierre-perce, when as you can see the Rocke (which lyeth to the Northwards of Pierre-Perce) without the poynt, there it is deepe foure fathom and a halfe, and when as Pierre-Perce is Northnorthwest, and north and by west from you, then you come thwart of the Roek, and there you finde deeper water, to wit, five, six, and at last seven fathom, but when you come in the fareway of Pickeliers, then you get 10, or 12, fathom water.

Before the River of Nantes lye many bancks, but at halfe flood men goe over them, the south poynt of the river of Nantes lyeth from the North poynt Northnorthwest and southsoutheast foure leagues asunder, to the southwards of it, the land lyeth in with a great indraught, and there men doe run into the Bay. These uneven bancks in the river of Nantes, are very unlike, sometimes men found in fifteene fathom, and presently afterwards but seven or eight fathom.

Banks before the Loiret

But to saile from Bel-ile to the bay or Armentiers you must goe e. s. e. untill that you see the Abbey of Armentiers to the eastwards of the trees, which stand within the land over the same Abbey, then goe on e. and e. and by n. so long untill that the Abbey come within the castle of Armentiers, then are you within the Monck legge. Goe then againe e. s. e. untill that you bee within the rock of Pierremen, you may goe about it on both sides, and when that you can see the Grave open, then you may anckor in 7. or 8. fathom, and row a shoare to fetch a Pilot; it is Pilots water. From Bell-Ile to Armentiers, the course is eastsoutheast about 12. or 13 leag. asunder.

Armentiers.

Pierremen.

From Armentiers to Use, or Heys, it is south and by e. seven leagues, and from Bell-Ile to Use or Heys, southeast 16. leagues. The Iland of Pickeliers lyeth right before the poynt of Armentiers. Betwixt Armentiers or Pickeliers and Use, it is an uneven fareway, with many showlds and banks from 4. 5. 6. and 7. fathom. Upon Use standeth a sharp tower and some little houses or milles, whereby it is very good to be knowne. It is in the fareway betwixt Use and Bell-ile 35. and 40. fathom, but when men are within the fareway, it is 25. fathom deepe.

Pickeliers

Heys or Vle.

Under Use it is not very good riding, the sea commeth alwayes so rowling in, as if the water came through under the Iland, at the northend it is showld water, the road is, when the Church steeple is southwest from you, in 8. or 9. fathom; but men lye there not sheltred but onely for a south west and westsouthwest winde, and it doth ripple there alwayes very much.

From Use to the Killiats, or to the Iland of Saint Martens, the course is eastsoutheast twelve or thirteene leagues. Betwixt both lyeth the Bearges of Olone about halfe a league off from the land of Poictou, and east and by south seven leagues from Use in the right fareway, and in regard that it is nothing but Rocks and stones, therefore it is not good to come neare them in darke weather, men may sayle round about them. and at low water they are uncovered. If you will sayle from Use, unto the Killiaets, or unto the tayle of Aise, through within the Baerges, then sayle on first east, and being within the Baerges of Olone, saile to the land of Poictou, which lyeth from Olone to Saint Martens Iland eastsoutheast, and from Olone to the Pickeliers northwest.

From Olone to the Killiaets the coast lyeth most eastsoutheast foure or five leagues. For to sayle into the Killiaets, which is in alongst to the northwards of the iland of S. Marten, in betwixt the foresayd Iland and the mayne land of Poictou, you must goe in somewhat more northerly then the middle of the channell, or leave two third parts of the channell towards S. Martens Iland, and one third part towards the mayne land. Alongst by the Iland of S. Martens it is uneven, and somewhat full of bancks, come not too neare also the mayne land, for there lye off also some banckes, but you may borrow of them by your lead. Goe in alongst, as before is sayd, untill that the Church of S. Martin be southsouthwest from you, then you shall bee past the banck which lyeth north from S. Martens, and lyeth off from the shoare somewhat to the westwards of S. Martens, that is, a hard steepe stony bancke, which showldeth up suddenly. For to avoyd it when as you must turne too and againe with an easterly, or a northeast winde, you must not bring the little tower of Hars in the Village of Loy, but when the little tower of Hars commeth to the first, or northermost house of Loy, then you must cast about, for then you come against the banck, where remaineth at low water about a fathom depth, and at high water about foure fathom. When the foresaid little tower of Hars commeth against a mill which standeth at the south end of Loy, then are you within the bancke, to wit, betwixt the Bancke and S. Martins. When S. Martens commeth to be southwest and by south, and southsouthwest from you, then you may boldly saile over the end of the banck towards S. Martins, you shall finde there at low water and spring tide at least three fathom or sixteene or seventeene foot, also one cast or 2. but twelve foot, then it is all soft ground, as also before S. Martens, but the bancks are hard, and with spring tides there remaineth little water upon them. Before S. Martins you may anckor in 4, 5, or 6. fathom.

For to sayle into the Killiaets.

Marks of the banck before S. Martens.

For to anckor before Saint Martens.

For to anckor before S. Martins, you must anckor so, that you may see open into the haven, and that the poynt of the Abbey, and the Bosse doe stand the length of two capstone-barrs one from the other, there it is with spring tides at low water three fathom and a halfe, but at high water six fathom and a halfe deepe.

When you sayle into the Killiaets, as before is sayd, it is twelve, eleven, and ten fathom deepe, but being come so farre that the tower of S. Martins beginneth to stand southwest from you, there it will be by little and little showlder, and then you may well edge towards the Iland in five and foure fathom, it showldeth then suddenly up, and will be from ten, quickly five, and foure fathom.

If you will goe over the banck that lyeth off from the Abbey with a shippe that draweth much water, then you must

ſtay ſo long that it be halfe flood, for at low water there remaineth no more upon it then three fathom, or a foot or two more: when it is ſomewhat flowed, then you may well goe over with a great ſhippe. When the little tower of Huſſou commeth to the north end of the Iland Urck, or Tivalenes, then are you upon the ſhowldeſt of the banck, but when the little Tower commeth over the ſouth end of that little Iland, then it beginneth to deep againe.

The marks for to keepe the deepeſt water, when you run over the banck, are theſe: keep the great Tower of Rochell a handſpikes length to the ſouthwards of the wood of trees, which ſtandeth upon the northermoſt high land, and run ſo over the banck, it is there all ſoft ground.

If you will anckor before the Abbey within the bancke, then run into ſix or ſeven fathom and anckor there.

But if you will not anckor under S. Martens, but will ſayle forth towards Burnt Iland, then bring that foreſaid little tower of Luſſou over the little houſe that ſtandeth upon the litle Iland Urck, and keep it ſo ſtanding, and then you can take no hurt of the Laverdyne.

Laverdin. The Laverdyne is a rane of rocks together a musket ſhot long, which lyeth off from the eaſt poynt of S. Martens Iland, about an Engliſh mile, and with ſpring at low water is uncovered. Betwixt it and the Iland of S. Martens men may ſayle through, there is depth enough. The markes of the Laverdyne are theſe: When you come in at the Killiats, and ſaile through betwixt Saint Martens Iland and the Boſſe, and you come to ſee the great Tower of Rochell even without the poynt of the Boſſe, then are you right thwart of the Laverdyne, which lyeth then ſouthweſt from you, it is there betwixt them both not very wide: or elſe when the foreſayd great Tower of Rochell ſtandeth even without the poynt of Boſſe, and the North poynt of the Plom a ſhippes length without the ſouth poynt (which is the north poynt of the Boſſe) then are you right upon the Laverdyne, therefore when Rochell commeth a ſhippes length to the ſouthwards of the Boſſe (when you come in at the Killiats) then are you paſt the Laverdyne, and you may boldly goe on ſoutheaſt, and ſoutheaſt and by ſouth towards Burnt-Iland.

Porthus. Porthus is a broad and wide channell, lying in through betwixt S. Martens Iland and Oleron, and lyeth from Uſe ſoutheaſt and by eaſt diſtant about fifteene leagues. If you will ſayle into Porthus, then run in betwixt both lands eaſt-ſoutheaſt, but much nearer S. Martens Iland, for to avoid the banck of Oleron, which is a foule ledge of rocks, at the n. end of Oleron, come no nearer it by night then in twelve or thirteene fathom.

When you come then by the eaſt end of S. Martens iland and are bound to Rochel, or elſe will anckor under the Boſſe bring the great Tower of Rochell a ſhips length without the Boſſe, ſo you can take no hurt of the Laverdyn. You may anckor under the Boſſe in 5 or 6 fathom ſoft ground, ſo that the poynt doe lye north from you. Or elſe if you will anckor under the Abbey of S. Martens Iland, then run in upon the foreſaid marks, ſo long untill that the foreſaid Abbey come without the ſ. point of the ſame iland, ſaile then right with it, and then you ſhall leave the Laverdyn farr enough on the larboard ſide of you. And being come neare the Abbey, anckor a little to the eaſtwards of it in 5. 6. or 7. fathom, there is the road for ſhips that are bound out.

When you goe into Porthus, and will ſayle to the Burnt Iland, then runne in (as before is ſayd) untill you come neare the eaſt end of Saint Martens Iland: from thence the courſe is ſouth eaſt and by eaſt, or from the Boſſe ſouth or ſouth and by eaſt, or with a weſterly wind ſouth and by weſt unto that Iland.

Burnt Iland. When you ſayle ſo neare that burnt Iland that the tower of Voorn, or the Four, commeth over the Burnt Iland, there you may caſt your ballaſt over board, it is there 12. fathom deepe.

If you muſt turne too and againe with a ſoutherly winde from the Boſſe to the Burnt Iland, or from Burnt Iland to the Boſſe, then come not too neare the land of Rochell, there lye divers ſtony banckes alongſt the land, a good wayes from the ſhore, whereof you muſt take heed. When Rochell is hidden behinde the ſouth poynt which lyeth over againſt the Creeke, the lyeth a ſtony bancke, upon which remaineth not a fathom of water.

If you will ſayle into the river of Sherrant, then runne about to the ſouthwards of Burnt-iland, you may alſo ſayle about to the northwards of it, and ſayle in by the Tower of Voorn, or Four. At low water this river falleth dry, at leaſt foure leagues within the land. For to ſayle from Burnt Iland to Burwage, you muſt ſayle away ſ.ſ. eaſt and keepe the little tower of Heers to the weſtwards of the wood, ſo long untill the tower of Voorn or le Four, come over the little red-tyled houſe, that ſtands upon the ſ. ſide of the river of Sherrant ſaile then in ſ.e. and by little and little ſ.e. and by e. untill that Front (a village that lyeth upon the ſtrand) commeth to the northwards of Soubiſe, when as then Soubiſe cometh within the foreſayd village, and the mill above the village, then you ſhall be againſt the poynt of Oyſterbanck, goe then in alongſt ſoutheaſt and by ſouth, and bring that outermoſt little tower of Heers, over the outermoſt ſandy place, where the gallowes ſtandeth by, keep them ſo ſtanding, and ſayle in ſouthſoutheaſt, when as then the little tower of Heers commeth to the eaſt ſide of the valley, which is in the wood, then keepe that ſharpe little tower right over the eaſt ſide of the valley of the wood, and ſayle in ſo into the Creeke, or river of Burwage. At Burwage was wont not to ſtand a houſe, where now is a ſtrong faire towne, being builded ſo within 70. or 80. yeares paſt. Oyſterbancks,

The Bannier lyeth alongſt the land of Oleron, and lyeth untill within Burnt iland, at low water it is uncovered, and the tayle of it lyeth farre to the northwards. If you ſhould turn out from the Creek towards the Burnt iland, then bring the tower of Rochell not without the burnt iland, before you come thwart of it, becauſe of the Baniard, & then you ſhal take no hurt of it. Baniard

At the ſouth end of Oleron, betwixt Oleron and the land to the ſouthwards of it, is yet another channell, where men may ſaile in and out, called the Mamme-ſound, deep enough for great ſhips: it lyeth in from out of the ſea eaſt and by n. being come there within, there runneth up a river ſoutheaſt towards Sales, where men doe lade ſalt, being paſt that, to the other poynt of the Mamme-ſound, lyeth a plate, whereof men runne to the northwards upon theſe marks: you muſt keepe the mill that ſtandeth upon the lands of Oleron over the trees, and ſo you ſhall runne to the northwards of the plate, there is the road for them that will lade ſalt at Oleron or Olderdorp. Mamme ſound.

But if you will runne in through, and out againe, then you muſt ſayle ſo farre to the eaſtwards, untill that Sales come over the trees, which ſtand within Merven, for to avoyd the tayle or riffe that ſhooteth off from Oleron: when Sales commeth over the trees, ſayle then north and by weſt on, to the Burnt-Iland, but bring Duke Charles tower to the ſouthwards of the Burnt-Iland, for not to ſayle within the Banniard. When the little Tower of Heers commeth to the wood keepe it then ſo ſtanding untill Rochell commeth over the north ſide of the burnt Iland, ſayle then out at the Portruſh. There ſhooteth off alſo a riffe from the weſt end of Saint Martens Iland, whereof you muſt take heed. Riffe at S. Martens Iland.

About ſouth, or a little more weſterly, thirteene leagues from the Iland Uſe, ſouthweſt and by weſt from the Iland S. Martens, and w. n. w. or ſomewhat more northerly from the river of Burdeaux, lye the Rockes of Rockedon, or Rochebon, of ſome called Urkania, in forme of a Trevet or Brandize. The ſouthermoſt of the three is the ſhowldeſt, whereupon remaineth at low water about 2. fathom depth: At the ſoutheaſt ſide the ground is black little ſtones, and at the northeaſt ſide white ſand, but you may not come neare them by your lead found by them. Rocks of Rochebon

A little to the weſtwards, not farre from the foreſayd rocks, lyeth yet another rock, whereupon is at low water five fathom water, nevertheleſſe with a ſtorme the ſea breaketh terribly upon it.

Of the Tydes and Courſes of the ſtreames.

At Abberwrack an e.n.e. and w.ſ. w. Moone, maketh full ſea.

Without

Without Vſhant a w. ſ. w, and e.n.e, moone, and within the Trade a ſouthweſt and by weſt Moone, maketh full ſea.

At S. Matthewes poynt, a ſouthweſt and northeaſt Moon maketh higheſt water.

In the broad *Sound*, betwixt Vſhant and the Seames a w. ſ.w. and e.n.e. moone maketh the higheſt water: The floud falleth very ſtrong upon Vſhant, and to the ſouthwards of it through the Mullens, Thwart over the Trade, towards the Backovens. Likewiſe in through the Broad Sound unto Breſt. Alſo alongſt by S. Mathews poynt towards the Fourne, or Backovens, with very great rippeling. He that commeth ſailing about Vſhant, muſt reckon thereupon.

In the Race of Fontenay a ſouthweſt and by ſouth, and northeaſt and by north moon maketh full ſea. The floud falleth very ſtrong thorow betwixt the Keyſer, ſomwhat thwart over towards the Lavender, with very great rippeling over the Calfe, (that is the ledge of Rocks, which lyeth off from the Lavender) and from thence forth north, and north and by weſt inwards to S. Mathews poynt: With calms men muſt take very good heed not to be miſcaried away with the current. With ſtormy weather out of the north or ſouth, it is not without danger to come in this channell, eſpecially with an ebbe or out-fall.

On theſe coaſts of Britaigne, and the Iland thereabouts, a ſouthweſt and northeaſt moon maketh the higheſt water: but within the havens, rivers, indraughts, and bayes, a ſouthweſt and by weſt, and northeaſt and by eaſt moone, or a poynt later, according as the havens or rivers doe lye deepe in the land. Men doe not reckon there any ſetting or running of the ſtreames, for the floud commeth (through the ſwelling of the great Ocean) right againſt the coaſts, and ſo runneth onely into the havens, the Ebbe contrariwiſe goeth thwart from the ſhoare to ſeawards, when it falleth: ſo that men cannot perceive any courſe of ſtreames except it bee a little through, or about ſome poynts of Ilands.

On theſe lands, as on all the coaſts of Britaigne, a northeaſt and ſouthweſt moon maketh high water, and within the havens, rivers and in-draughts, a poynt or two later according as they lye far within the land.

On theſe coaſtes and Ilands a ſouthweſt and northeaſt moone maketh high water, within the Havens and Rivers a poynt or two later, according as they lye farre within the land.

Of the Depths about theſe places, and in what depths men may ſee the land.

Thwart of Abberwrack 5 leagues from the land, it is deep 50 and 55 fathom.

The Backovens, or the land of the Fourne men may ſee in 50 fathom.

Vſhant being about ſouth from you, you may ſee it in 50 fathom.

Southweſt from Vſhant 5 or 6 leagues off it is deepe 75 fathom, and then you may ſee the land from the poop.

In the Broad *Sound* it is deepe 45 fathom.

A little without the Seames, about a league, it is deepe 50 fathom.

Men may ſee the Seames and the Sheete, or Slaeplaken, in 60 and 65 fathom.

Betwixt Vſhant and the Seames in the fareway it is deepe 55 fathom.

Thwart of the Pennes and the Glanons men may ſee the land in 55 and 60 fathom.

Bell-Ile men may ſee from below in 55, but under the top in 60 fathom.

Without Vſe it is 35 fathom deepe, and then men may ſee the land from below: when it is cleare weather men may ſee in 60 fathom.

The land of Olone men may ſee it from below in 25 and 30 fathom.

S. Martens Iland and the north end of Oleron men may ſee in 28 and 30 fathom. When men get ſight of S. Martens iland, they ſhall ſee upon it a high tower, with a high houſe, and upon the ſtrand a mill with foure or five high ſand-hils. Vpon Oleron men ſhall ſee a high ſpire tower, upon a red poynt, where men ſhall ſee ſome trees ſtand over it and to the ſouthwards of it, is at 2 or 3 places ragged ſand-hils.

How theſe lands doe lye one from the other, and from other lands.

From Ile de Bas to the Fourne, Weſtſouthweſt 16 leagues

From the Fourne to *S.* Matthewes poynt ſ.ſ. e. and ſoutheaſt and by ſouth leagues.

From S. Mathewes point to Croydon, or Claeſdowne e.ſ.e. 3 leagues

From S. Mathewes point to the race of Fontenay, or the Keyſer, ſouth and by eaſt 5 leagues

From Uſhant to Portland n.e. 53 leagues

From Vſhant to the Steart northeaſt and by north 40. leagues

From Vſhant to the Lizart north 29 leagues.

From Vſhant to Silly northweſt and by north 37 leagues

From Vſhant to Cape Cleare in Ireland northweſt 84 leagues

From Vſhant to the Iland of *S.* Michaels, ſouthweſt and by weſt 360 leagues

From Vſhant to the Cape Finiſterre ſ. ſ. w. weſterly 123 leag.

From Vſhant to Ciſarga ſ.ſ.w. 77 leagues

From Vſhant to Cape Prior ſ.ſ.w. 160 leag.

From Vſhant to C. de Pinas ſouth 97 leagues

Fram Vſhant to Laredo ſ.ſ.e. 113 leagues

When men ſail away ſand by eaſt from Vſhant, then they run a little without the *Seames*.

From the race of Fontenay to the Pennes ſoutheaſt nine leagues

From Fontenay to Oldyarne e.ſ.e. 5 leagues

From Oldyarne to the Pennes ſoutheaſt and by ſouth five leagues

From the weſt end of the *Seames* to the Pennes e.ſ.e. ſomewhat ſoutherly 13 leagues

From the Seames to the Band or Craghe of Oleron ſouth e. and by eaſt 112 leagues.

From the Seames to the Bayon in France ſoutheaſt 112 leagues

From the Seams to S. Sebaſtians ſoutheaſt and by ſouth 112 leagues

From the Seames to Bilbaw ſouthſoutheaſt, eaſterly 110 leagues

From the Seames to Saint Andero ſouthſoutheaſt ninety leagues

From the Seames to Cape de Pinas, or Tores, ſouth, 88 leagues

From the Seames to Ribadeus, ſouth and by Weſt, 93 leagues

From the Seames to Cape de Ortegall, ſ.ſ. weſt ſoutherly, 90 leagues

From the Seames to C. Finiſterre ſouthweſt and by ſouth, ſontherly 112 leagues.

From the Seames to Silly, Northnorthweſt, five and forty leagues

From the Pennes to the Glanons, the courſe is eaſtſoutheaſt leagues

From Glannons or Gloyland to Groy, eaſt and weſt nine leagues

From the eaſt end of Groy to the weſt end of Bell-ile, the courſe is ſouthſoutheaſt 5 leagues

From Glannons, or Gloyland, to Bell-Ile, ſoutheaſt and by eaſt 12 leagues

From the northweſt end of Bell-ile to the ſoutheaſt end, the courſe is ſoutheaſt and by eaſt 5 leagues.

From the Pennes to Bell-ile eaſtſoutheaſt 21 leagues

From the eaſt end of Bell-ile to the eaſt end of the Cardinall, eaſt and by north 4 leagues

From the eaſt poynt of the Cardinall, to the entring of Mor-

Morbeam n.n.w. 4 leagu.
From the Pennes to Viverus, southsouthwest 88 leag.
From the Pennes to Ciſarga, ſouthwest and by ſouth 104 leagues
From Groy to Viverus, ſouthwest and by ſouth 93 leag.
From Groy to Cape de Finiſterre, ſouthwest 123 leag.
From Bell-Ile to the river of Bourdeaux, ſoutheaſt 50 leag.
From Bell-ile to S. Sebaſtians, ſouthſoutheaſt ſoutherly, 80 leagues
From Bell-ile to S. Andero, ſouth. 73 leagu.
From Bell-ile to C. de Pinas, or Tores ſouthſouthwest, 80 leagues
From Bell-ile to Cape de Orregall, ſouthwest, 90 leagues
From Bell-ile to Cape de Finiſterre, ſouthwest 123 leagues
From the eaſt poynt of the Cardinall to Croſwyck, e. n.e. 5 leagues
From the poynt of Croſwyck to Pierre-Perce, eaſtſoutheaſt 3 leagues
From the Cardinall to Old-downes, eaſtnortheaſt ſeven leagues
From the n. point of the River of Nantes to the Picqueliers, e.ſ.e. 7 leagues
From Pierremen to Armentiers weſtſouthweſt 2 leagues
From Armentirs or Picqueliers to the Weſt end of Vſe, ſ. and by e. and ſouthſoutheaſt at leaſt 7 leagues
From the eaſt end of Bell-ile to Vſe, ſoutheaſt eaſterly 16 leagues
From Vſe to the Barges of Olone, eaſt and by ſouth, 7 leagues.
From Vſe to the Killiates, or *S.* Martens Iland, eaſt ſoutheaſt 12 or 13 leagues
From Vſe to Cape de Pinas, ſouthweſt and by ſouth 75 leagues
From Vſe to Cape de Ortegall, ſouthweſt and by Weſt 93 leagues
From Vſe to S. Martins iland, or the Killiates, the courſe is e.ſ.e. 12 or 13 leagu.
From Vſe or Portuſh, or the Band of Oleron, the courſe is ſoutheaſt and by eaſt 15 or 16 leag.
From the Band or Craghe of Oleron to the tower of Cordan ſ.ſ.e. and ſ. and by e. 13 leag.
From S. Martins iland to the tower of Cordan, or the river of Burdeaux, ſ.ſ. e. 16 leagu.
From S. Martens iland to Cape de Pinas, ſouthweſt 80 leagues.
From S. Martens iland to Ortegall, the courſe is w.ſ.w. ſomwhat ſoutherly 99 leagues

Heigths.

Uſhant lyeth in 48 degr. 30 min.
The Seames lye in 48 degr. 5 min.
The iland Bell-ile lyeth in 47 degr. 50 min.
The iland Uſe in 46 degr. 48 min.
The north point of Oleron in 46 degr. 15 min.

How theſe Lands doe ſhew themſelves at Sea.

When Uſhant is ſouth & by weſt from you 4 leagues, it ſheweth it ſelfe in this forme.

Uſhant, being ſouth and by eaſt from you 4 leagues ſheweth it ſelfe thus.

Uſhant, being ſouth and by eaſt from you 3 leagues. ſheweth it ſelfe thus.

Thus ſheweth Uſhant, being ſ.e. from you 4 lea.

Uſhant, being eaſt from you 2 or 3 leagues ſheweth it ſelfe thus.

Thus ſheweth the Sheets, or Slaeplakens, with the Pennes, as you ſaile alongſt by them, and that they are about 4 leagues thwart from you.

Uſhant, being eaſt and by ſouth, and e.ſ.e. 3 or 4 leagues from you, ſheweth it ſelfe in this forme.

Thus ſheweth Ushant, when it is eaſt and by ſouth from you foure or five leagues.

When Uſhant is 4 leagues eaſt from you, it ariſeth in this forme.

Uſhant being e.n.e. and by e. from you 5 leagues ariſeth thus.

Uſhant being e.n.e. from you 2 or 3 leagues, ſheweth it ſelfe thus.

Uſhant being e.n.e. and by e. from you, ſo farre as you may even ſee it from below, ariſeth in this forme.

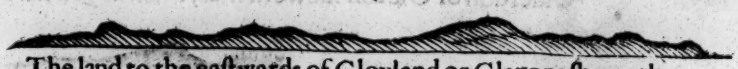
When Vſhant is northnortheaſt from you, it ſheweth thus.

Vſhant

Uſhant being n.e. & by eaſt 3 or 4 leagues from you, ſheweth it ſelfe, as is here demonſtrated.

Thus ſheweth the land betwixt the Pennes and the Glanons, when it is n.e. and by e. 5 or 6 leagues from you. This hill is very good to be knowne, it overtoppeth in height all the land thereabouts. The Pennes are then n.n.w. from you 4 or 5 leagues.

Thus ſheweth the land of Glanons, when you ſaile alongſt by it.

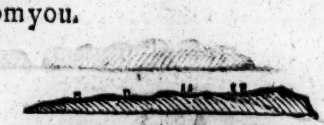


The land to the eaſtwards of Gloyland or Glanons ſheweth thus, when you ſaile alongſt by it.

Thus ſheweth the weſt poynt of Groy, when it is three or foure leagues northeaſt from you.

When Groy is northnortheaſt from you 4 leagues, it ſheweth thus.

Thus ariſeth Bell-ile, when the n.w. end is eaſt from you 4 leagues.



When Bell-ile is northeaſt from you 4 leagues, it ſheweth thus

When the northweſt point of Bell-ile is eaſt and by north from you 4 leagues, and the ſoutheaſt point is eaſt and by ſouth, and eaſt ſoutheaſt, then it ſheweth thus: when as you ſaile towards it, and you come neare the land, then the peeces which lye off from the northweſt end, at laſt come to be faſt unto Bell-ile.

Heys, being ſoutheaſt and by ſouth from you, that a man may ſee it from the Compagne, ſheweth out of the Marſſe thus.

Heys, being northeaſt from you, ſheweth thus.

Thus ſheweth the iland Uſe, or Heys, when you ſayle alongſt by it, being two leagues off from it.

Heys being e.n.e. from you, and that a man may ſee the tower from t[illegible] Compagne, ſheweth thus; and you are then upon 31 fathom depth.

Olone.

Thus ſheweth the Land of Poictou betwixt Heys and the ilands of S. Martens, when you ſaile alongſt by it foure leagues a ſeaboard the Land.

This coaſt lyeth ſouthſoutheaſt.

Thus ſheweth the weſt end of the iland of *S.* Martens.

This belongeth to the former figure from the weſt end of *S.* Martens Iland, and ſheweth it ſelfe thus, when the ſteeple is eaſt and by ſouth from you 3 or 4 leagues off, the coaſt lyeth here eaſtſoutheaſt, and weſtnorthweſt.

When S. Martens Hand is north and by eaſt from you it ſheweth it ſelfe thus.

When men ſaile out or in at Porthus, S. Martens Iland ſheweth it ſelfe in this forme.

When the Tower of the Iland S. Marten is eaſtſoutheaſt 3 leagues from you, then the land ſheweth thus.

Thus ſheweth the ſouth ſide of S. Martens iland, when the tower or weſt end is north, and the eaſt end northeaſt three or foure leagues off from you.

The weſt poynt of Oleron, or Olderdon, ſheweth it ſelfe thus, when it is eaſt from you two great leagues, Thereabouts it is twenty fathom deepe.

Down Downyland.

Olderdon or Oleron ſheweth thus, when as you have the trees north by the tower, which is then ſoutheaſt from you.

When you are before Porthus, about two or three leagues from land, then doth Oleron and Olderdon ariſe in this forme.

The land betwixt Olderdon and the river of Burdeaux ſheweth (when men ſaile alongſt by it) as is portrayed in theſe five following figures, the letters of one ſort belong one to the other, as AA, BB, CC, DD,

The Iland Olderdon.

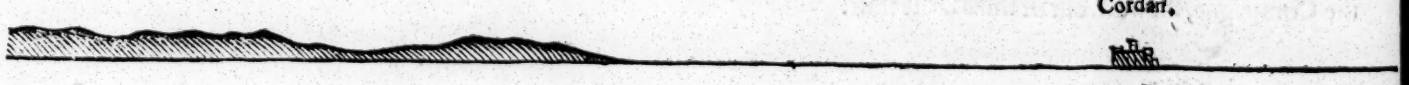
A Sales

Thus ſheweth *Sales*, when it is eaſt and by north from you, being about a league without the land.

B

High ſand-hill.

Cordan.



The ſecond Demonſtration.

Which

Containett the deſcription of the River of Bourdeux to Ribadeaux.

FROM the Band of Craghe of Oleron to the Tower of Cordan, or the Pole-head, or the mouth of the River of Bourdeaux, called the Garrone, the land lyeth ſoutheaſt, and ſoutheaſt and by eaſt 13 leagues.

To the northwards of the mouth of the river of Bourdeaux, lye five or ſix high white *Sand*-Hilles, but to the *S*outhwards of it, it is ſomewhat low land, blacke little Sand-Hilles, being growne with ſpiry graſſe.

From the Tower of Cordan off to the northwards, towards the high Sand-Hilles, which lye upon the north land,

Piper. lyeth a ſand-bancke, called the Piper, men may ſound alongſt by it on the weſt ſide in ſeven fathom, but upon the north end it is very ſteepe, and not farre off it is twenty fathom deepe.

Norther & ſouther Aſſes. From the north point of the River runneth off to the ſouthwards, a ſand called the norther Aſſes, and to the ſouthwards of it lyeth another ſand, called the ſouther Aſſes, thorow betwixt them both, and alſo alongſt to the ſouthwards of them men ſayle into the River.

If you will ſaile into the River comming from the northwards, then you may run alongſt by the ſhore in 12 & 13 fathom, untill that the tower of Cordan ſtand ſoutheaſt & by eaſt from you, runne then right in with it, through betwixt the norther and ſouther Aſſes, untill that the high white ſandhill upon the north point of the river ſtand northnortheaſt from you, men may ſo (comming from the northwards) runne in alſo about by the norther Aſſes, by your lead, untill that the Tower come to be ſouthſoutheaſt, and ſoutheaſt and by ſouth from you, then goe towards the Tower, and when the foreſaid high ſand-hill come to be northnortheaſt or northeaſt and by north from you, ſayle then right in with it, untill that you have the ſounding of the land, run then in alongſt by it, towards Meſſie, that is the point where all the mils ſtand. When you ſhall ſaile thus towards the high ſand-hill, and that the tower of Soulack commeth a great fathom to the northwards of the Tower of Cordan, and the little mill of Royan then are you alſo paſt the Piper, & may Roy run in right eaſt without feare towards Royan, but you muſt reckon well your tide, for the flood falleth thwart over the Aſſes towards the Tower of Cordan, and the ebbe in the contrary.

In

Duytsche mylen 15 in een graadt — Lieues d'Allemaigne 15 en un degre

Spaansche mylen 17½ in een graadt — Lieues d'Espaigne 17½ en un degre

Engelsche en Fransche mylen 20 in een graadt — Lieues Angl. et Franc. 20 en un degre

Costez de France & de Biscayen depuys la Reviere de Bourdeaux jusques a Ribadeux

Rivier van Bourdeaux

Duytsche mylen 15 in een graadt — Lieues d'Allemaigne 15 en un degre

Spaansche mylen 17½ in een graadt — Lieues d'Espaigne 17½ en un degre

Engelsche en Fransche mylen 20 in een graadt — Lieues Angl. et Franc. 20 en un degre

B I S

Bilbao

Portogalette

Placentia

Oria

S. Sebastiaen

Comax Reede

Gatte d'oste Comax haven

Deva

Barit[illegible] mea

C. de Machicao

Lhianes

Rio de Sella

Villa Viciosa

Sansoen

Duytsche mylen 15 in een graadt

Spaansche mylen 17½ in een graadt

Engelsche en Fransche mylen 20 in

37

De
Cuſte van
Vranckrijck
Tuſſchen
De Riviere van
Bourdeaux en
S. Sebaſtiaen

R A N C R Y C K

Bayonne

Labutan

S. Ian de Luz

Cave Neuve

S. Anna

Pinas de
S. Anna

C. Figuer

Paſſage

S. Sebaſtiaen

De Cuſte van Biſcaÿa
Tuſſchen S. Sebaſtiaen en
de Reviere van Lhianes

I S C A I A

Laredo

Orinagan

C. Ratſo

S. Andreo

Lalata

M. S. Antony

Eſpinoſa

S. Iuſta

S. Martin
Setevilles

S. Alana

S. Vincente

Lhianes

C A I A

De
Cuſte van
BISCAYEN
Tuſſchen Lhianes ende
de Reviere van
Ribadeus

Caſtrapol

Ribadeus

Luarca

't Landt
van Artedo

Aviles

C. d'Aviles

Tyes

C de Pinas

In this foreſaid channell through betwixt the Aſſes remaineth at low water three fathom water upon the ſhowldeſt.

For to ſayle into the river alongſt to the ſouthwardes of the Aſſes, comming from the northwardes, (that is, the beſt channel) you muſt doe thus: Bring the tower of Soulacke eaſt from you, or ſomewhat more northerly, and ſayle in ſo right with it, untill the tower of Cordan be north & by eaſt, and northnortheaſt from you, Royan ſhall then ſtand northeaſt from you, or els if you come from the ſouthwardes, then bring the Tower of Cordan north and by eaſt, and northnortheaſt from you, and ſaile in ſo right with it, untill Soulack com to be eaſt from you, Royan ſhall then ſtand northeaſt from you, ſaile then right towardes it, and comming neere it, ſaile to the poynt of Meſſie.

When you are now within the rivers mouth, and come right againſt the poynt of Meſſie, that is the point where the mills ſtand upon, then edge over towardes the broken Caſtle, called Chaſtillion, ſoutheaſt and by ſouth, that is, eight leagues from Meſſie, and then forth in alongſt by the ſouth land, ſoutheaſt in unto Pouliack, which is two great leagues.

In the fareway betwixt the Piper and the poynt with the milles, or Meſſie, it is ten, eleven, and twelue fathom deepe; but out of the fare-way, either on the north ſide, or ſouth ſide, it is showlder, to wit, five, ſixe, ſeven, and eight fathom, you muſt runne alongſt cloſe by the poynt of Meſſie, there it is 22 fathom deep.

When as that Royan commeth to the weſt poynt, where upon the milles ſtand, keepe it ſo ſtanding, and goe away ſoutheaſt and by ſouth towardes Chaſtillion, it is in this fareway almoſt all alongſt five fathom deepe, but comming neere the north or ſouth ſide, it is showlder, and at the north ſide it is full of ſandes, where alſo men may wel ſayle through that are acquainted.

From Chaſtillion to Pouliack it is 2 great leagues ſoutheaſt, the courſe is as before is ſayd, and it is there deepe 4, 5, 6, and 7 fathom. Over againſt Pouliack in the middeſt of the river lyeth a little Iland to the eaſtwardes, men muſt runne about it, right in with Bloye, but there men muſt goe over with the tyde, for it is there at low water but a little more then one fathom deepe.

When you are before Pouliack, and will ſail to Bloye, then let the water firſt flow an houre, and then you may well goe over with a ſhip that draweth nine or ten foote water. The marckes for to ſayle alongſt in the deepeſt water of this reach, are theſe: there ſtandeth a mill halfe wayes betwixt Bloye and Rockttaw, keepe that without the new wall of Bloy, and then you ſhal run in the deepeſt of the channel.

Before bloye it is againe three or foure fathom deepe, run then alongſt by the north land in three, foure, and five fathom, When you come before the River which lyeth up to the eaſtwardes called Dordoigne, then ſayle firſt right with the middeſt of the ſecond Iland, and leave it on the ſtarboard ſide, and go indifferend neere alongſt by it, untill that you be over againſt or paſt the gallowes, which ſtandeth upon the eaſt poynt of the river: and then againe alongſt by the northland unto the foure little houſes. From thence you muſt edge over to the high tower of Dublot or Pigeonhouſe, comming thwart of it, you muſt preſently edge over againe to the eaſt ſide, to the hight neer Lermond; in that edging over you ſhal run through betwixt a ſtone-banck on the larbord ſide, and a ſhowld ſand-plate on the ſtarboord ſide, over a banck called the Pace, which is the ſhowldeſt of all the river, there remaineth at low water a little leſſe then a fathom. Being come over the Pace to the eaſt ſide, go then in alongſt by the eaſt ſhore, untill you be paſt Lermond, then ſaile againe over to the weſt ſide, right with the houſes of Charterhouſe, and then in all alongſt by the weſt ſhore, untill you come before the towne of Burdeaux, in that crooked reach betwixt Lermondt and Charterhouſe it is five, ſixe, and ſeven fathom deepe, and before, the towne foure and five fathom.

When men will ſayle out of the river of Burdeaux; they muſt ſtay at Royan untill they have good weather, and a fore-ebbe to runne out with: in running out, keepe the high ſand-hill northnortheaſt from you, ſo long untill that the tower of Cordan be ſoutheaſt and by eaſt from you, then you may ſayle out through the Aſſes northweſt and by weſt into ſea.

From Cordan, or the river of Burdeaux, unto Arcachon, the coaſt lieth ſouth and nord twenty leagues, it is all low ſandy land, betwixt them bouth lyeth a tyde-haven called Anchiſes, men may goe in there well at high water with great ſhippes.

Before the haven of Arcachon, or Arcaſon, lye three little Ilands, men may ſaile into the northwardes of them, and alſo in to the ſouthwardes of them: the norther entry goeth in betwixt the north poynt and the northermoſt Iland, but it is narrow and not deepe. The ſoutherent tyde lyeth to the ſouthwardes of all the Ilands by the ſouther poynt, in betwixt two ſhould ſand-banckes, where of the one lyeth off from the ſouthermoſt Iland, and the other from the ſouth poynt of the main land, ſouthweſt and by weſt into ſea. The land to the northwardes of this haven is alto gether ſomwhat low ſandy land without trees, but to the ſouthwardes of it there are al ſomewhat high ſand-hils without trees alſo, but coming before the havens mouth, you ſhal ſee within in the land many trees. When you come out of the ſea either from the northwardes or the ſouthwardes, neere about this havens mouth, you ſhal eaſily eſpie the foreſayd banckes on both ſides of the ſouther entry, by the breaking of the ſea, and you may borrow of them by your lead, as neere as you pleaſe, they are very cleane and flat. Upon the ſandhils within the havens mouth, ſtand two great high maſtes. If you will ſaile in there, then bring the two maſts one in the other, and then they ſhall ſtand northeaſt and by eaſt from you, keepe them one in the other, and ſaile in ſo right with them, and you ſhall ſo ſaile in betwixt the two foreſayd bankes, and at low water you ſhal not finde leſſe then two fathom water, but at high water you ſhall have five and a halfe, and ſixe fathom water, goe in ſo upon the markes, untill you come within the Ilands, and to the end of the ſhowld ſand on the larboord ſide. Being gotten in within it, you muſt luff up about by it, and goe then on north untill you come to the poynt, which you ſhall ſee on the ſtarboord ſide, but give that a birth, becauſe there runneth of a taile there is in that reach not leſſe then ten, eleven, or twelve fathom deepe. Being come about that poynt, you may then ſaile in cloſe alongſt by the land on the ſtarbord ſide, which lyeth eaſtſoutheaſt, or you may anckor there in ſixteen, fifteen, twelve, and ten fathom, or furter in about the ſecond poynt in two and three fathom. Over againſt the firſt point, on the north ſide, it falleth very farre dry, a great wayes within.

Arcaſon.

For to ſaile into the haven of Arcaſon.

From Arcaſon to Bayone the coaſt lyeth ſouth & north ſixteene or ſeventeen leagues. The Rivers mouth of Bayone lyeth in betwixt two plain ſtrands eaſtſoutheaſt, and eaſt and by ſouth, and ſometimes more eaſterly or northerly, by reaſon of the ſhifting and altering of the ſands before the rivers mouth. Upon the land on the ſouth ſide of the channel, ſtand two maſts, theſe you muſt keepe one in the other, or the innermoſt a little to the northwardes of the outermoſt, and runne ſo in over the Barre or ſhowldeſt place, untill you come againſt the ſouth poynt, and then in alongſt by it. Upon the foreſayd Barre is at high water and Spring tyde, at leaſt three fathom, with an ordinary tyde two fatom and a halfe, but at low water no more then three foote water. When you come about the poynt, you muſt ſaile up to the ſouthwards, keeping about the middle of the channel alongſt the river, or rather neereſt the weſt ſide, for to avoyd ſome fowle ground and ſhowlds, that lye on the eaſt ſide, and anckor before the towne in foure, five, or ſixe fathom. This Barre and this River is Pilotes water.

Bayone.

A little within this Barre on the north ſide of the river lieth up to the northwards, a great water within of ſeven leagues long, and falleth out into ſea by Cabritton. Alongſt that great water the ſhips were wont to ſaile up to Bayone, but it is now upon the ſouth end at the river of Bayone, almoſt altogether paled to, ſo that there can but ſmall barkes

goe through, for to keepe the better the Barre of Bayone deepe with ſcowring through of the water.

From the Barre of Bayone to S. Iohn de Luz, the courſe is ſouth and by weſt 4 leagues, there is a faire Bay, where men may ride in five, ſixe, ſeven, or eight fathom, according as they will lye farre in, cleane ſandy ground, at the end of the Bay is a little tyde-haven, where upon lyeth the towne on the weſt ſide. At high water, and with an ordinary tyde, there commeth nine foote, but with aſpring twelve foote water, at low water it falleth altogether dry, ſo that men may goe over there with drie feete. A little within the weſt poynt of the Bay is alſo a little Dock, where there is a foot water more then in the foreſayd tyde-haven, buth it falleth alſo dry at low water.

This Bay is very good to know by theſe marks that hereafter are written: It lyeth right in the Bight, to the eaſtwardes of it lyeth the land north and by eaſt towards Bayone, and to the weſtwardes of it the land falleth away ſouthweſt and by weſt, and ſouthweſt towards Fonteravia. Upon the eaſt point of the Bay ſtandeth a white Fire-tower, which men may ſee farre off, eſpecially when the Sunne ſhineth upon it, then it ſhineth very white more then the other land. Upon the weſt poynt ſtandeth a flat white houſe a little wayes upon the high land, and to the weſtwardes of the Bay it is upon the ſea ſide gray and blewiſh land. Alſo the high hill of S. Iohn de Luz, is a good marke for to know this Bay, which remaineth in ſailing in, lying ſomewhat to the eaſtwardes, or on the larboard ſide. This foreſayd hill of S. Iohn de Luz ſheweth it ſelfe out in height above all other hilles thereabouts, and thereby is very good to bee knowne: above upon the top it is ſomewhat flat, as is demonſtrated in the riſing of the lands. Upon this foreſayd hill ſtandeth a Chappell, frō whence men may ſee into foure kingdomes: France, Spaine, Navarre, And Arragon.

Pignons of S. Anna

About two leagues ſouthweſt and ſouthweſt and by weſt from S. Iohn de Luz, lye the rocks called the Pignons of S. Anna, not farre from land: a league to the weſtwards of them, lyeth the Bay of Fonteravia, being a faire Bay.

At the weſt poynt of the Bay lyeth the C. Figuer, a high poynt, upon it ſtandeth a caſtle, an to the ſouthwards of it a little chappel. At the poynt of this cape lyeth a rock a little wayes from it, but the ſea cannot runne through betwixt them, except it be with very high floods, it breaketh a little through. At the eaſt ſide of this bay lye two high rocks, & thwart of them lye alſo ſome low rocks a good wayes off from the land. For to avoyd them you muſt ſaile in by the weſt poynt for to come into this Bay, and being within it, you may anckor in eight or nine fathom, but ſo that the foreſayd great rock at the C. Figuer ſtand northnorthweſt from you, there you lye in faire ſandy ground, and landlockt for a northweſt winde. The Kroonenbergh lyeth about halfe wayes betwixt S. Iohn de Luz and this foreſayd Bay of Fonteravia.

Kroonenbergh.

Paſſagie.

A little league to the weſtwards of C. de Figuer, lieth Paſſage alſo a faire havē. At the weſt ſide of the havens mouth, which is very narrow, lyeth a round rock, ſo that it is evill to come in there with an ebb, but with a flood it is better, without it is very cleane, without any ſhowlds or fowle grounds, but onely the foreſayd rounde rocke. The towne lyeth a little within the haven on the weſt ſide, where men doe lye before it in 7 fathom.

S. Sebaſtians.

Two great leagues to the weſtwardes of Paſſage, lyeth S. Sebaſtians, betwixt both is alſo a ſand-bay in a bight, where there goeth up into the land a ſhowld little river, where come in many barkes.

The haven of Saint Sebaſtians is good for to come into, men doe runne in there betwixt two little caſtles, where of the eaſtermoſt is the great, ſtanding upon a high hill. The weſtermoſt is a little ſquare tower, and lyeth upon a little Iland, or rock. In the havens mouth being narrow, betwixt the two foreſayd little Caſtles, lyeth a rocke, which at low water is ſixe fathom deepe, and when it is a ſtorme out of the ſea, it breaketh alwayes upon it, and lyeth neereſt the eaſtland, by the weſt land it is deepe then fathom. Now for to avoyd the foreſayd rocke in comming in, there commeth an Abbey to the eaſtwards of the weſtermoſt Iland, and a little tower. If you keepe them one in the other, then you run into eaſtwards of it.

For to anckor without S. Sebaſtians in the road, you muſt keepe the high hill which lyeth upon the poynt of C. Figuer, without the foreſayd eaſtermoſt caſtle, there you may anckor, but if the ſame come to be hidden behind the caſtle or Iland, then you may not ancker in the road of Saint Sebaſtians. When you are come through the narrow within the rock and the caſtles, then you may anckor at the eaſt ſide under the great caſtle, there is the beſt road. Within the foreſayd caſtle goeth up a little water, men may goe at low water a foot from the eaſter caſtle alongſt a high ſtrand upon the maine land, unto the towne, which lyeth behinde the foreſayd high hill with the Caſtle, yet the ſtrand at hig water is covererd, it is a bay, and within before the towne it is deepe five, ſixe, and ſeven fathom; at the weſt ſide under the little Iland, men may not anckor, becauſe it is flat & showld there.

Caſtro.

He that will goe forth from thence into S. Sebaſtians, let him run in, keeping the middle channell, betwixt the two Ilands, and let him leave the little Iland where upon the chappell ſtandeth on the ſtarboord ſide, running in ſo right againſt the firſt or the ſecond wall of the towne, and anckor there, the boats or ſhallops ſhall come aboord of him, and helpe him into the haven betwixt the walles.

M. S. Anthony.

A league to the weſtwardes of S. Sebaſtians, lyeth a ſand-bay, where men may anckor ſo deep and ſo ſhallow as they will.

Suncken Rockes.

From S. Sebaſtians to C. de Martinchaco the courſe is w. n. w. 13 leagues. Betwixt them both lye the roades Gateria and Deva.

Gate

Gateria lyeth from S. Sebaſtians weſt and by north, and w. n. w. diſtant eight leagues, being afaire round ſand-bay, where is good riding for weſterly winds, men lye there within the weſt poynt right before the towne, in faire ſandy ground, a north winde commeth right from the point. This bay is commonly called Kings haven.

Alongſt the coaſt of Biſcay, betwixt S. Iohn de Luz and Gateria is every where clean ground and good ankoring in 20 fathom.

From Gateria to Deva it is a league and halfe to the weſtwardes: which is an off-water that commeth out of the high-land.

C. Keſgo.

Two leagues to the weſtwardes lyeth the poynt of C. Martinchaco.

Berme

S. Andero

About thirteene leagues weſtnorthweſt from S. Sebaſtians, lyeth the Cape de Martinchaco, a little to the weſtwardes of it is a good tyde-haven, where in lyeth a little towne about a league within the land, upō a river which commeth out of the high land. A little to the weſtwards of Cape de Martinchaco, lyeth a great rock faſt to the land, and a little to the weſtwardes of the ſame, another: upon the poynt called Punte de A villanes. Southweſt and by weſt from Martinchaco lyeth the haven of Barmea, a faire great Bay, the eaſter poynt is foule, therefore men muſt give it a good birth, and run in alongſt by the weſt ſide, when they are gotten in it is large enough, there they may anckor where they will.

Placen

To the weſtwardes of Barmea, lyeth alſo Placentia upon a little River, the towne lyeth a little within the land. There are al tyde-havens.

Laredo.

From Cape de Martinchaco to Bilbao, (where betwixt lye the foreſayd havens of Barmea Placentia) it is ſouthſouthweſt & ſouthweſt and by ſouth 7 leagues.

Bilbao.

From Placentia to Bilbao it is two leagues weſtſouthweſt and weſt and by ſouth. Bilbao lyeth upon a great river, alongſt which there commeth off much Iron, it is a good haven, but it lyeth not farre in, by reaſon of the Barre which lyeth thwart over the haven, were men muſt goe in with high water.

At the eaſt poynt of Bilbao ſhooteth off a riffe, which men muſt avoyd, there lye alſo ſome rockes under water. It is a high ſteepe point, and is white to ſee to.

Within the riffe that runneth off from the poynt, men may

may anckor in ſeven and eight fathom, betwixt the poynt and the Piere on the eaſt ſide, there the Pilotes come off which bring up the ſhippes; and there men lye land-lockt for a northweſt winde. From this foreſayd poynt or road to the Barre or river mouth of Bilbao, it is a league & halfe ſouth and by weſt, which lyeth in by the weſtland, there ſtand five or ſixe houſes upon the weſtland, when the two weſtermoſt houſes come one in the other, or when you may ſee through the two eaſtermoſt houſes, which ſtand within in the land, then are you upon the Bar or ſhowld, then goe in ſouth, and ſouth and by eaſt right with the Caſtle Portugalletto, & alongſt cloſe by the Caſtle, and ankor a little within the Caſtle for a weſt wind. But when you are before the Barre, the Pilotes come off and bring you to the towne.

When you lye without in the Bay, then you may ſee Mount Anthony lye weſt & by north from you.

Caſtro. From the poynt of Bilboa to Caſtro, the courſe is weſt five leagues, that is a good haven of ſixe, ſeven, and eight fathom depth. The narrow of the haven lyeth in ſouth, in ten fathom. But further in the river towardes the towne, it is not deeper then three or foure fathom.

M.S. Anthony. From Bilbao to the hil of S. Anthonies, it is weſt and by north nine or ten leagues. From Caſtro to Laredo, the courſe is weſt diſtant five leagues, upon the weſt ſide lyeth the foreſayd hill of S. Anthonies, which is a high hill, men may ſayle in cloſe alongſt by it, untill they come about the eaſt poynt; within it is wide and brood, and a fit haven for great ſhippes, there men may anckor in ſeven or eight fathom. To the eaſtwards over againſt the hill of S. Anthonies, in the middeſt of the ſound, leyeth a rane of rockes under water, where men may ſaile in about it on both ſides, men may eaſily eſpy them, becauſe it doth alwayes break upon them, within them is the road for ordinary ſhips, a little before the haven, which is built with a wall: but the great ſhippes lye a little further off in 6 or 7 fathom depth. On the ſouth ſide of the haven is a little tyde-haven, from the ſame there commeth a great riffe ſhooting off from the eaſt ſide, towardes the hill of S. Anthonies; within it is two fathom water right before the village, from the village cometh a taile of ſand, lying thwart out, within it at low water it is a fathom deepe. In the middeſt of the ſound it is ninne fathom, and at the poynt of S. Anthonies 20 fathom deep.

Suncken Rockes.

C. Keſgo. From S. Anthonies hill to Cape de Keſgo it is weſt and weſt and by ſouth two leagues, that is a great Cape lying to the eaſtwardes of S. Andero: thwart of it is clean ground.

S. Andero From Cape de Keſgo to the weſt poynt of S. Andero, it is weſt and by ſouth five leagues, a little to the ſouthwardes of the poynt of S. Andero, upon the eaſt poynt of Sardinis, is a ſand-bay, there is good ankoring in ten fathom.

From C. de Keſgo to the haven of S. Andero, the courſe is w: ſ. w. diſtant 2 great leagues. S. Andero lyeth within a Bay, there lyeth an Iland before the haven, men may goe about it on both ſides, it is deep 8 and 9 fathom; but to the ſouthward of the Iland it is deep 5, 6, & 7 fathom, according as men will come neer to the ſtrand, the haven lyeth in firſt w.n.w. The Iland lyeth a great league within the bay: from the eaſt poynt of the haven, unto the weſt poynt of the land, it is ſouth and north about a great league. S. Anthonies and the weſt poynt of S. Andero, lye one from the other eaſt and weſt about 5 leagues.

Laredo. For to know the land when you fall with the land about Laredo, you muſt know that on the weſt ſide of the haven of Laredo, lyeth the hill of S. Anthonies, which is very high hill, which men may ſee very farre from the eaſt and the weſt, and a little above the towne of Laredo, men may ſee alſo a ſharpe hill like the poynt of a Diamant, or the poynt of a two hand ſword, further it is about Laredo very high double land, two, three, and at ſome places foure double. The hill of S. Anthonies doth ariſe in two high hommokes, with a valley or ſadle in the middeſt betwixt them both; within in the land lye alſo two high hills with ſharpe topps. Aboue and to the weſtwards of S. Anthonies, lyeth a peece of land about two leagues long by judgment, which lyet in five hills, the eaſtermoſt is the loweſt, and riſe all higer and higher towards the weſt, ſo that at the laſt the weſtermoſt is the higheſt, which goeth off ſomewat flat downward towardes the weſt. Betwixt that eaſtermoſt hill and S. Anthonies, lyeth a bay about a league long, called the Bay of Port, men cannot ſee theſe foreſayd hills when they are cloſe by the land, but they muſt be a good wayes off to ſeawards. To the weſtwardes of theſe foreſaid hills lyeth an other peece of land, which at the eaſt end is higheſt, and goeth ſloping off towardes the weſt end, almoſt like Portland. Betwixt that poynt and the five foreſayd hills, lyet an other ſand-bay, where abouts ſtand ſome little houſes, but by it lye many rockes and fowle ground. Thereabouts within the land lyeth the foreſayd high round ſharpe hill in forme like the poynt of a ſword. Bay of Port.

S. Andero hath but few hills that are good to bee known; but when men are before the haven, then they ſhall ſee to the eaſtwards of the towne, a Caſtir upon a high hill; in forme like a Sugerloafe, or a hay-crock, and to the eaſtwards of it is much double land of two and three heights double. But when men come about the Cape de Keſgo, then they ſhall ſee preſently the caſtle upon the weſt land.

From S. Andero to C. de Pinas, the courſe is weſt or a little more northerly 38 or 39 leagues. Betwixt them both ly theſe havens following.

S. Martin. Settevills. Firſt the haven of S. Martin, or Settevilles, a tyde-haven lying eaſt and weſt foure leagues from S. Andero.

S. Vincent. From thence to S. Vincent alſo a tyde haven is five leagues diſtant: the haven goeth in on the eaſt ſide; from the weſt ſide commeth ſhooting off a little riffe, and in the midſt of the havens mouth lyeth a little Iland, where men may goe in on both ſides.

Lhanes. From S. Vincent to Lhanes, a tyde-haven; the courſe is weſt 2 or 3 leagues. Upon the weſt ſide of the haven ſtandeth a little church: and a little within the haven, lyeth a middle plate or ſand, men muſt go in on the weſt ſide of the ſand: theſe are all narrow havens, and but little knowne.

From Lhanes to Rio de Sella, the courſe is weſt 5 or 6 leagues: betwixt them both lye alongſt the coaſt many rocks, and within them many ſand-bayes, where men for need might ſaue ſhips.

Rio de Sella. He that will goe into Rio de Sella muſt look out for a maſt which ſtands upon the eaſt land cloſe by the ſame men muſt go in, the weſt ſide is within fowle, within te maſt men muſt ankor before the villagie: this is alſo a tyde-haven.

From Rio de Sella to Villa Vicioſa it is weſt 9 leagues this is alſo a tyde haven, but is clean, the havens mouth lyeth in ſ. ſ.e. and ſoutheaſt and by ſouth cloſe alongſt by the weſt poynt of the land, the eaſt ſide is fowle unto the middeſt of the haven: there lyeth a rock with a plate righ in the midſt of the haven, which at low water fall dry: ſo ſoon as men are within that rock, they muſt anckor within the rock; upō the weſt ſide lyeth the towne, men may alſo ſaile up to it, & ankor there in the ſhowld water.

Sanſon. Seven leagues to the weſtwards of Villa Vicioſa lyeth the out-poynt of Sanſon, to the eaſtwards of it lyeth a little Iland, where upon ſtandeth a little tower. Betwixt Sanſon and the foreſayd little Iland is a good road in 6 or 7 fathom.

At the weſt ſide of Sanſon is alſo a good road right before the little haven of Sanſon in 6 or 7 fathom.

Gion. To the weſtwardes of Sanſon lyeth Gion with a Piere or Head that is paled off, under the which the Fiſhermen which dwell there, lay their barkes.

Tores. A great league to the weſtwards of Gion lyeth the Bay of Tores, a good road for a ſouthweſt and weſt wind in 8 and 9 fathom. Upon the poynt ſtandeth a high tower.

C. de Pinas. Three leagues to the weſtwardes of Tores lyeth Cape de Pinas, where many rockes lye off to ſeawards, at leaſt a halfe league off, ſome doe ſay that men may ſaile through betwixt the poynt and theſe rockes.

From the cape de Pinas lyeth off a rane of rockes, lying at the leaſt a halfe league into ſea, ſome ſay that men may ſaile through betwixt the poynt and theſe rockes. But a little

within or to the weſtwards of the Cape de Pinas, lyeth a great rock, betwixt that rocke and the land men may ſaile through.

When men are within the Cape de Pinas, then lyeth Avilles three leagues from thence ſouthſouthweſt which is a good tyde-haven, where a great ſhippe may well goe in at halfe flood, alſo there is a good road before this haven in ſixe and ſeven fathom.

Avillis. For to ſayle in there, men muſt goe in by the eaſt land, the weſtland is farre off ſhowld, there ſtandeth a litle Chappell upon the eaſt land, men muſt ſayle in cloſe by it, and anckor a little wayes within two rockes that lye on the eaſt ſide, a little within the havens mouth. The towne lyeth a league further up. From the weſt poynt runneth off a riffe, and lyeth inwards alongſt the haven, towardes the town, ſo that it is there very ſhowld on both ſides. On the weſt ſide without the haven in the bight, lye two great rockes right before the little Church in the Sand-bay, men ſaile round aboud them, but it is not very cleane: but without the rocks is good anckor ground in ſeyen or eight fathom, over againſt the little Church that ſtandeth againſt the high land,

Luarca From Avilles to Luarca is ſix leagues and from Luarca to Ribadeus weſtſouthweſt ſixe leagues, and from Avilles to Ribadeus ſouthweſt and by weſt twelve leagues.

Ribadeus From the eaſt poynt of the havens mouth of Ribadeus, lyeth off a ledge or riffe of rocks towardes the weſt ſhore, you may ſound in about it in foure fathom, or foure fathom and a halfe: or elſe if you keepe the little towne Caſtropoll even without the poynt, and ſo ſaile right in with it, then you ſhal not come too neere the foreſayd ledge, but you ſhall ſayle far enough alongſt to the weſt wardes of it. The weſt poynt ſheweth it ſelfe when you come in out of the ſea, like an Iland; upon it at the north end ſtandeth a flat tower, almoſt like the tower in the Groyne, but not ſo great. About thwart of that tower lyeth a ſuncken rocke a little wayes from the land, you muſt look out for it, and take heed of it, when there commeth in any great ſea, you can eaſily eſpye it by the breaking of the ſea upon it, but not with ſmooth water: at the very loweſt water it commeth even with the water. The weſt ſhore is fowle and rocky: there runneth off to the ſouthwardes of the foreſayd tower alſo a fowle ledge or riffe of rockes, at leaſt halfe wayes over the havens mouth, and at the ſide of it you cannot uſe the lead. When you are paſt the ledge or riffe that lyeth off from the eaſt ſhore, you muſt run in about it, and edge in ſomewhat to the eaſt ſhore, and ſaile in alongſt by it, untill that you are paſt, or come to the end of the foreſayd ledge or riffe of rockes, which lyeth off from the weſt ſhore, as ſoone as you ſhall be paſt it, you muſt luffe up about it towards the weſt ſhore, for to give the eaſt ſhore (within the havens mouth) a birth, which is a great wayes within very flat or ſhowld, but on the weſt ſide it is deep water. There ſtandeth a little tower on the weſt ſhore a little within the point, where the riffe lyeth of, which you ſhall ſee when you are come within the weſt poynt, and run alongſt by the riffe, when you get that little tower weſt or thwart of you, then are you at the end of the riffe, then you muſt ſaile towardes that little tower, untill that you come to the weſt ſhore, and run in alongſt by it, untill you come before the towne, there you muſt lye with an anckor to ſeawards, and with a cable faſt on the rockes.

Of the Tydes and Courſes of the ſtreames.

Like as on all the coaſtes of France, ſo alſo at the mouth of the river of Burdeaux, maketh high water a ſouthweſt and northeaſt moone.

On all the places, and before all the havens of theſe coaſts, a ſouthweſt and northeaſt moon maketh the higheſt water; but within the havens about a poynt later, according as they lye deepe within the land; like as on the coaſts of Brittaigne, Poictou, and Gaſcoigny. Men reckon here alſo no falling or ſetting of the ſtreames. But the ſtreames fall here thwart off and on.

Of the Depthes.

The land againſt the River of Burdeaux men may ſee from the poop in 30 fathom, and the Tower of Cordan in 27 fathom.

Betwixt Arcaſon, & S. Iohn de Luz, men may ſee the land in 30 fathom, when men are about Bayone, they ſhall ſee Cabritton, Bayone, Bedert, and S. Iohn de Luz, almoſt all flat towers.

Being before Paſſage, men may ſee alſo the poynt C. Figuer, and S. Sebaſtians, the land lyeth in there with a great Bay.

About C. de Figuer lyeth a high hill, which at the ſouthweſt end is very ſteepe, and goeth very long ſlopeing down towardes the north.

When men are before Saint Sebaſtians 7 or 8 leagues without the land, then it riſeth ſomwhat long, and at the weſt end ſteepe and hollow, but when men come cloſe by the land, then it is very high and ſteepe.

When men are 8 leagues without S. Sebaſtians, then may they ſee the eaſtermoſt or greateſt caſtle upon the high hill, and alſo the little Iland to the weſtwards of it.

Courſes & Diſtances.

From Cordan to Arcaſon ſouth	20 leagues.
From Arcaſon to Bayone ſouth	16 or 17 leagues.
From the Tower Cordan to Cape de Pinas w. ſ. w. ſomewhat ſoutherly	75 leagues.
From Arcaſon to Bayone ſouth	16 or 17 leagues.
From Bayone to S. John de Luz ſouth and by weſt	4 leag.
From S. John de Luz to the Pignons of S. Anna, ſouthweſt and by weſt	2 leagues.
From S. John de Luz to S. Sebaſtians weſt	8 leagues.
From S. Sebaſtians to Gateria weſt and by north, and weſt northweſt	8 leagues.
From Gateria to Cape Martinchaco northweſt	5 or 6 leag.
From Bayone to the Seames n. w.	112 leagues.
From S. Sebaſtians to Bell-Ile n. n. w. ſomewhat northerly	80 leagues.
From S. Sebaſtians to the Seames northweſt and by north	112 leagues.
The courſes and diſtances of theſe places one from the other, is declared in the deſcription.	
From Cape Martinchaco to Arcaſon northeaſt eaſterly	28 leagues.
From C. Martinchaco to Uſe, north eaſterly	60 leagues.
From S. Andero to the Seames northnorthweſt	96 leag.
From Cape de Pinas to the Tower of Cordan eaſtnortheaſt, and northeaſt and by eaſt	72 leagues.
From Cape de Pinas to Porthus or S. Martins Iland, the courſe is northeaſt eaſterly	80 leagues.
From Cape de Pinas to Bel-Ile the courſe is northnortheaſt	80 leagues.
From Cape de Pinas to the Seames north	88 leagues.
From Cape de Pinas to Cabo de Veilli in Ireland north and by weſt weſterly	170 leagues.

Heights.

The Tower of Cordan lyeth in	45 degrees 45 minutes.
Arcaſon in	44 degrees 40 minutes.
Bayone lyeth in	43 degrees 45 minutes.
The Cape de Martinchaco in	43 degrees 46 minutes.
The Cape Martinchaco lyeth in	43 degrees 46 or 48 minutes.
The Cape de Pinas lyeth in	43 degrees 54 or 56 minutes.
The whole coaſt of Biskaye betwixt Cape de Pinas and Martinchaco, lyeth in about	43, 44, or 45 minutes.

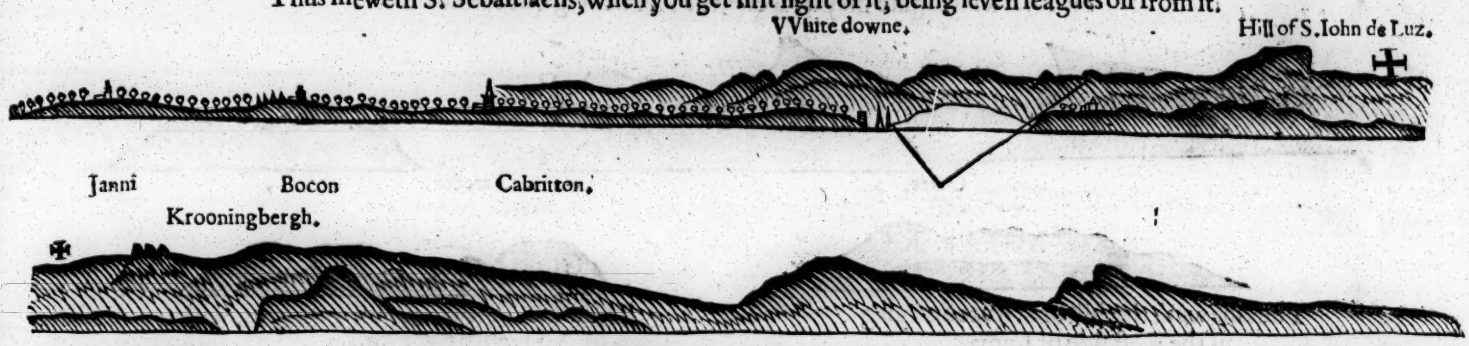
How theſe lands doe shew themſelves at Sea.

Thus ſheweth the land about Arcaſon when it is from you eaſtſoutheaſt neare two miles.

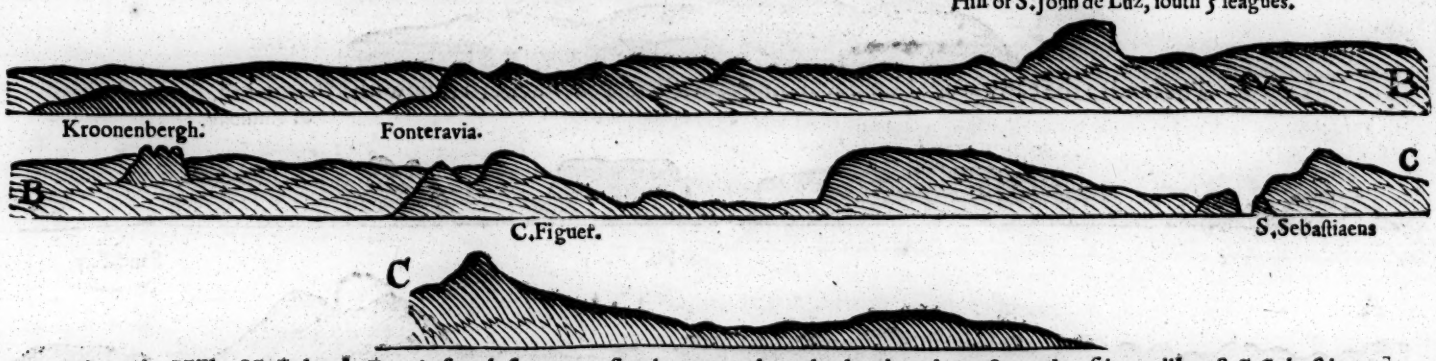
Thus appeareth Arcaſon when it is northeaſt and by eaſt about two miles.

Thus ſheweth the land about the bight of S. John de Luz, off from Cabritton untill paſt S. Sebaſtiaens.

Thus ſheweth S. Sebaſtiaens, when you get firſt ſight of it, being ſeven leagues off from it.



The foreſaid Iland about the bight of S. John de Luz from the northwards of Cabritton untill paſt Fonteravia, ſheweth thus, as is demonſtrated in theſe two figures, when you are before the barre of Bayone.

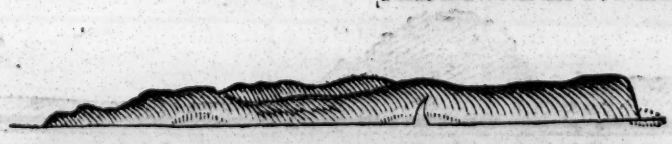


When the Hill of S. John de Luz is ſouth from you five leagues, then the land to the eaſtwards of it untill paſt S. Sebaſtiaens, ſheweth as is here above portrayed in theſe two figures, the BB, and CC belong one to the other.

Thus ſheweth the land about S. Sebaſtiaens when it is five leagues from you.

Paſſage and S. Sebaſtiaens, being ſouthſouthweſt from you, ſheweth thus.

Thus ſheweth the C. Martinchaco and the land to the eaſtwards of it

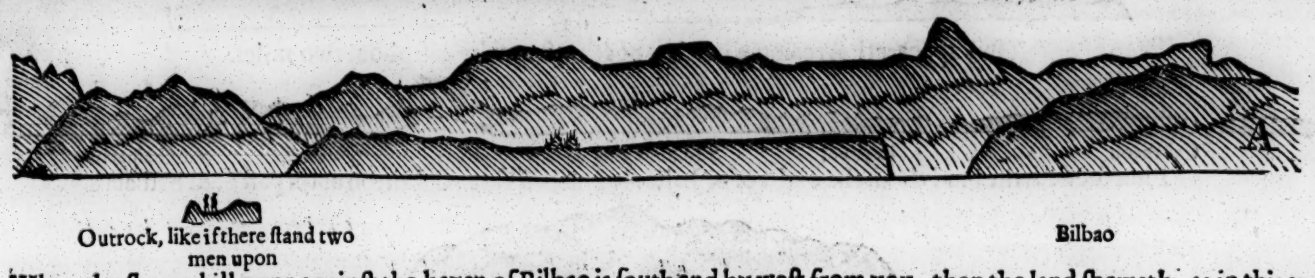


Thus ſheweth the land to the eaſtwards of Bilbao, when men fall there with the land.

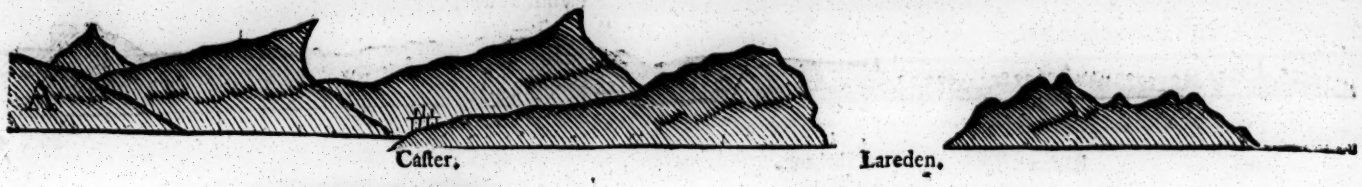
To the weſtwards of Bilbao towards Caſtro, men ſhall ſee a high ſharpe hill and ſheweth thus towards Caſtro.

Thus ſheweth the land betwixt the Cape Martinchaco and Bilbao.

Thus ſheweth Bilbao and the land to the weſtwards of it, when you are thwart of it.



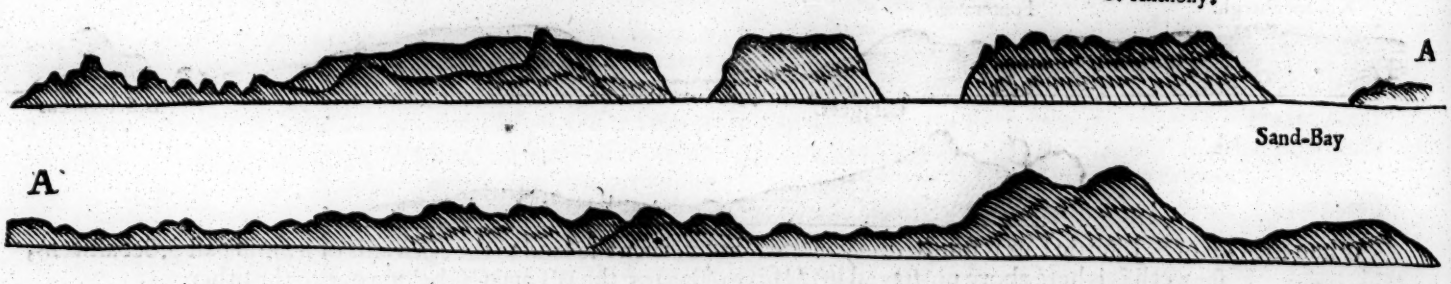
When the ſharpe hill over againſt the haven of Bilbao is ſouth and by weſt from you, then the land ſheweth, as in this and the following figure may be ſeene, the AA belong one to the other.



Thus ſheweth the hill of S. Antonio lying at the weſt ſide of Larea.

The hill of S. Antonio ſheweth thus, when it lyeth ſ.ſ.e. from you.

The land to the eaſtwards of Laredo, being ſouth from you, ſheweth thus with a ſharpe hill.

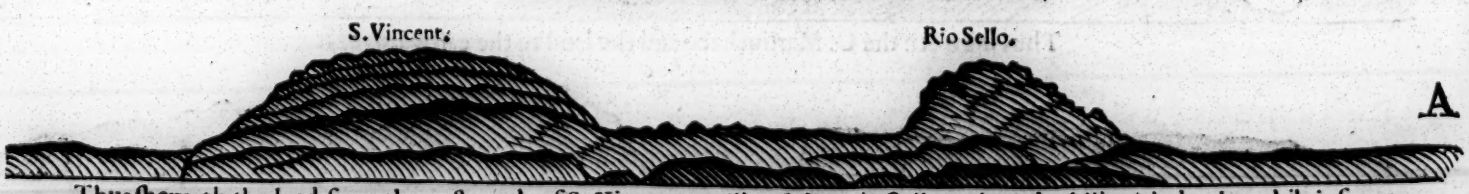


The land betwixt the weſt poynt of Bilbao, and C Keſgo to the weſtwards of Mount S. Antonio, ſheweth at ſea when you ſaile alongſt by it, as is portrayed in theſe two figures here above.

Thus ſheweth the land of Biskaye betwixt Laredo and Rio de Sella, when you ſaile alongſt by it.

Thus ſheweth the Land from Rio de Sella off, to Cabo de Pinas, when you ſaile alongſt by it.

Theſe foure figures following belong one to the other, the like letters, as AA, BB, CC, one to the other, and is the coaſt from the eaſtwards of *S.* S. Vincent to C. de Pinas.



Thus ſheweth the land from the eaſtwards of S. Vincent untill paſt Rio de Sella, when the hill with the three hils is foure leagues thwart from you, and Rio de Sella is foure leagues ſouthweſt from you.

Thus ſheweth C. Keſgo, Villa vicioſa, and the land to the weſtwards of them, when C. Keſgo is weſt foure leagues, and Villa vicioſa foure or five leagues ſouthſouthweſt from you.

Sonſoan

Sandbay. Thus ſheweth the land of Biskaye, when you are thwart of Gion.

This is the remainder of the three former figures, the CC being joyned together.

Channell of Tores

Thus ſheweth the land when you are by Tores.

Theſe three figures following one to the other, the like letters one to the other, and ſhew the riſing of the land on both ſides of the Cape de Pinas, to wit, when the Cape de Pinas about foure leagues ſouth ſomewhat weſterly, and the great hill to the eaſtwardes of it is ſoutheaſt from you.

Southeaſt.

This hill you moſt commonly covered with ſnow.

C. Pinas.

Thus ſheweth the land of Aviles, vvhen you are thvvart of it.

Theſe three figures followving belong one to the other, at the like letters one to the other, and ſhevv the riſing of the land. betvvixt C. de Pinas and Ribadeux, vvhen you ſaile alongſt cloſe by the land.

Thus the eaſtermoſt tovvards C. de Pinas, vvhen the land againſt Z is ſouth from you

Thus ſhevveth that land againſt Z, being ſouth from you not farre off,

Ribadeus. Thus ſhevveth the land betvvixt Luarca and Ribadeus.

Theſe tvvo figures followving belong one to the other at the AA together.

Thus ſhevveth Ribadeus, vvhen vou are thvvart of it about a halfe league from the ſhore.

Thus ſhevveth the land to the vveſtvvards of Ribadeus, when the hill by S is ſouth from you, and followveth to the former figure.

Theſe three figures followving belong one to the other, the AA and BB one to the other, and ſhevv the riſing of the land. about Ribadeus, and to the vveſtvvards of it.

Thus ſhevveth Ribadeus, vvhen the hill to the vveſtvvards of it, marked here vvith P, is ſouth and by eaſt from vou 4 leagues.

This belongeth, to the former, the AA one to the other

This followveth the tvvo former figures to the vveſtvvards of Ribadeus, the BB one to the other.

The

The Third Demonſtration.

Which

Declinated the Sea coaſtes of Galliſsia and Portugale, betweene Ribadeus and the River of Port a Port,

A Little league ro the weſtwards of Ribadeus lyeth a tyde-haven, he that cometh from the weſt alongſt by the ſhore thwart of it, ſhould lightly thinke that to bee the haven of Ribadeus, but is is light to dicerne from it by theſe markes following. On both ſides of this tyde-haven are the coaſts all high land, but on both ſides of the havens mouth of Ribadeus, it is low land. Alſo there lyeth a high ſharpe hill, and very good to be knowne, which ariſeth out aboue all other hills thereabouts, which may be knowne at leaſt 7 or 8 leagues off; upon it lye ſome heapes of ſtones to ſee to like little houſe, when that you have that hill ſ. ſ. w. from you, and ſaile in ſo right with it, then you ſhall fall with the land right before the havens mouth of Ribadeus.

Northweſt from Ribadeus about 8 leagues; lyeth the Cabo de Brilo, a little to the weſtwards of it lyeth the lit-
Viverus. le towne Viverus. To the weſtwardes of the Bay of Cipriaen (where men may ancker in ten fathom) lye two great high rockes. w. n. w. from theſe rockes about a halfe league lyeth the Iland *S.* Ciprian, right before the haven of Viveru, whereby this haven is good to be known: you may ſaile about on both ſides of this Jland into the haven of Viverus, in all alongſt in the middle of the channell ſouth & ſouth and by weſt until you come before the town, being within, you may anckor where you will either on the eaſt or weſt ſide, it is there ſhould water of 5, 6, 7, and 8 fathom, according as you run farre in. From the havens of Viverus or from the Jland S. *S*iprian to C. de Ortegal, the courſe is w. n. w. nine leagues.

Betwixt both, a league to the weſtwards of Viverus, lieth the little towne of S. Marcus with a Bay, there men may anckor in 7 or eight fathom, and ride for a ſ. ſ. w. and weſt wind.

Two great leagues to the weſtwards of S. Marcus lyeth the river of Caryns, there is alſo good anckoring, and from thence forth unto the caſtle of Ortegall, all the coaſt alongſt, it is there every where cleane. From Caryns to Ortegall the courſe is northweſt fiue leaguos. Ortegall is a great poynt lying out, to the eaſtwards of it men may lye landlockt for a northweſt, weſt, ſouthweſt, and ſouth winde, thwart of the caſtle is the beſt road, there men may anckor in 8 or 9 fathom. when men come from the eaſt, Ortegal is good to be knowne, they ſhall ſee the caſtle ſtand againſt the high land.

About a league northnorthweſt into ſea from the C. de
C. Ortegal. Ortegall, lyeth a great rane of rocks, betwixt them and the foreſayd Cape, men may ſaile through in ten fathom.

From the Cape Ortegall to the C. Prior, the courſe is ſouthweſt ten leagues, betwixt them both lyeth a Towne
Siverus. called *S*edeira, by the Dutch Shippers called *S*iveaus, which hath a deepe haven lying in ſoutheaſt. The north ſide of the haven is rocky and fowle, which you muſt avoyd, and run cloſe in by the weſtland, which is a high land; alongſt by it is twelve fathom deepe, vvithin the havens mouth it is ten fathom deepe you may ſayle in untill you come before the tovvne, and anckor there in 6 or 7 fathom.

C. Prior Fiue leagues to the vveſtvvardes of *S*edeira lyeth the C. de Prior, vvhich is a very ragged hil, to ſee to a far off, as if it vvere ful of people.

Three leagues from the Cape de Prior, lieth the haven
Feroll. of Ferroll: Betvvixt them both lye tvvo little ſand bayes, the ſouthormoſt (vvherein ſtand ſome little vvhite houſes) is the greateſt, and lyeth a little to the norrhvvards of the north poynt of Ferol; vvhen you come neare the Bay, the haven beginneth to open it ſelfe, it lierh eaſtnortheaſt and eaſt and by north in, amids the channell betvvixt tvvo high lands: when you come in, you muſt preſently edge up to the northwards by the north point and anckor there a little to the weſtwardes of the village Feroll, before the village it is flat and rocky ground.

For t
Je int
roll
the ſ
ward
When you come from the weſt, or from the Groyye, and will ſaile into the haven of Feroll, then goe away from the little Iland S. Blaſius north, and north and by weſt, and run a good wayes about, without the ſouth poynt of Feroll (which is very fowle and rocky) untill that you ſee the havē open, goe then yet ſo farre to the northwards of the ſouth point, untill that the haven doe ſhut againe, and run then right in with the foreſayd greateſt ſandbay, wherein ſtand the two or three little white houſes to the northwards of the haven, untill that you be within the ſouth poynt, and the fowle grounds which lye off from it; ſaile then right to the north point of the haven, and alongſt by it towards the ſouth ſide, untill that haven doe open it ſelfe againe, and runne then (as before) alongſt in the middeſt of the channell. This haven is ſo narrow in the comming in, that you may caſt a ſtone upon the land on both ſides, and in that narrow it is 20 fathom deepe. When you are in the havens mouth, you may ſee through betwixt the Jland *S*iſarga, and the maine land to the ſouthwards of it.

To ſayle from Feroll to the Groyne, the courſe is ſouth, and ſouth & by weſt 3 leagues, when you come neere the weſt land, you muſt giue it a birth, at leaſt of foure or fiue Cables lengths, becauſe it is not very cleene. When you come by the poynt where the Caſtle ſtandeth on, you ſhall ſee then alſo a little Jland with a little houſe upon it, you may ſayle alongſt by it within a halfe cables length, and runne about by it, up to the weſtwards, untill you come before the Fiſher village, and anckor there in ſixe, ſeven, or eight fathom.

For t
le int
Groy
From Dape de Prior to the Groyne, the courſe is ſouth, and ſouth and by weſt fiue leagues.

Eaſtnortheaſt from the foreſayd Iland where the Caſtle ſtandeth upon, goeth in a ſound Southeaſt five or ſixe lea-
Hare
tance gues within the land, to Bitanze, where you may anckor on the weſt ſide under a row of rocks, in 10 or 12 fathom, alſo you may ſaile ſo deepe in, that you can ſee no ſea.

Pont
Mas. To the northwards of that Sound, over againſt the poynt of the Groyne, lyeth alſo an other haven or *S*ound called Ponte de Mas, on the north ſide lieth a row of rockes, where men run alongſt to the ſouthwards of them: men may alſo ſayle there ſo deepe in, that they can ſee no ſea. A good wayes within lyeth a great bridge over the river,

He that commeth from the weſt off from the Jland Ciſarga and is bound into the Groyne muſt giue the north point or the weſt poynt of the Groyne (where the Tower ſtandeth) a birth of 4 or 5 cables lengths, as before is ſayd, which poynt is rocky and fowle farre from the ſhore, and run then eaſtſoutheaſt, and ſoutheaſt about by the poynt, and afterwards ſ. ſ. e. unto the little Iland with the Caſtle and about by it, as is beforeſayd.

Jland
ſarga. The little Iland Ciſarga, of the Dutchmen called Ceſarie, is fowle round about, and lyeth from the poynt of the haven of Feroll weſt and by ſouth, from the C. Prior w. ſ. w. and ſouthweſt and by weſt, and from the C. de Ortegall ſouthweſt, and ſouthweſt and by weſt 17 or 18 leagues.

From the Iland Criſarga ſouth and by weſt, and ſ. ſ. w.
quern lyeth Quernes, a good haven alſo for great ſhips, the weſt ſhore is cleane, but the eaſt ſhore is fowle, therefore men muſt ſayle in alongſt by the ſhore, when they are betwixt the two lands, then they muſt goe in amids the channell, unto the poynt, and then run up to the weſtwards a great halfe league in, and anckor there in 7, 8, and 9 fathom.

From

De Cuſte van Galiſſen tuſſchen de Reviere van Ribadeus en Capo de Finiſterre.

De Cuſte van Portugal tuſſchen C. Finiſterre en de Reviere van Port a Port.

Nostra Segnora alsa los Velos
C. de Brilo
Bar S. Ciprian
Viverus
I. S. Ciprian
S. Marcus
Karyns
Bitanse
Fonterna
Ponte deras
Ferol
C. de Prior
Siuerus
Esclud van Ortegal
C. de Ortegal
Duytsche mylen 15 in een graadt
Spaansche mylen 17½ in een graadt
Eng. en Franſ mylen 20 in een graadt
Ponte Vedra
Rondela
Aldana
Vigo
Cannas
Boos
Bajona
C. de Phaſelis
Rio Roxo
Porto nova
Cambado
S. Thomas
Proney
Roxo
Groue
Bly Stones
Monte Carbeta
Villa nova
I. Salure
Clip
Dorp
Mores
Monte Lauro
Sesbe
C. Finiſterre

Duytsche mylen 15 in een graadt — Lieues d'Allemaigne 15 en un degre

Spaansche mylen 17½ in een graadt — Lieues d'Espaigne 17½ en un degre

Eng. en Franſ mylen 20 in een graadt. — Lieues Angl. et Franc. 20 en un degre

C. Finisterre

Mouse

Marie kerck

C. Corianne

Monge

C. de Belem

Mannick

I. Erſarja

Duyst

Les Coſtes de Galiſſien et Portugal entre la Reviere de Ribadeus et la Reviere de Port à Port

R. Limas

Barca

Viana

Camina

Nivas

Ville del

Conde

Zurara

Port à Port

Clooster

Duyvels buys

Witte torre

Aeſerel

Wilhelmus Clooster

Wilhelmus Clooster

Wilburgen

S. Nicolaes

S.t Laus

Caſtel

32

c.de By-
lem.

Monſey

The we-
ſter chan-
nel of
Monſeye.

The eaſter
channel
ofMonſye

e.de co-
rtane.

Seche.
corck.
Bayone

Moore

From the Iland Cisarga southwest and by west, and w. s. w. 12 or 13 leagues lyeth the east point of Monsie, called Cabo de Bylem, which is a high steepe poynt, with many ragged rocks lying off loose from the land, wherof the greatest, being like a tower, doth shew it selfe black, and is called the Munck.

c. de Bylem.

There lyeth also a great rane of rockes right before the haven or sound of Monsie, southwest and by south from the Munck, at least two or three cables lengths long, but the innermost end of it lyeth from the Monck south and by west. When men sal with the land of Monsie, it is all double land; about the cape de Finisterre lyeth a high white sand, lying in within the land a sand-bay.

Also men may see comming about the c. de Finisterre, a ragged hill which runneth alongst so farre to the southwards that men may see it before the Moores.

Monsey

He that is bound in for Monsie, comming from Cisarga, must goe in close alongst by the C. de Bylem, or Bellem: this poynt is altogether a ragged high sharpe land of steep rocks, as before is said, and when you are by that poynt, then you must keepe the cape de Coriane a shipps length without the C. de Kote, so long untill that the Church of S. Maria come without the poynt of Monsie; run then in at the easter channell s. s. e. upon these markes, untill you be past the Church, then you shall see a row of rockes, run in behinde or within them, and anckor there before the village of Monsie in 5, 6, or 7 fathom. When you saile thus from the cape de Bylem to Monsie, then the rocks (which lye in the middest before the Haven) remaine about an English mile to seawards on the west side of you.

The wester channell of Monseye.

For to saile in at the wester channell, you must go in e. s. e. indifferent neare alongst by the land, and when the foresaid Ladies Church commeth without the poynt, then you must sayle towards the Rockes, which lye before Monsie, as is beforesaid, and anckor within the rockes in 7 or 8 fathom, but runne not too farre in, because there shooteth off a showld riffe alongst the Haven, whereof you must take heed.

The easter channell of Monsye

The easter channell is better to come into, then the wester channell, sayle not into Monsie before that you see the foresaid Church without the poynt, you may also anckor on the north side of the Haven in five, six, or seven fathom.

To the southwards of the village of Monsie is a bay where the foresayd riffe or showld lyeth before, lying c. n. e at least 2 cables lengths alongst the Haven.

Our Ladies church and the Munck lye one from the other n. and by e. and s. and by w.

e. de coriane.

Southwest from the cape de Bellem 3 leagues lieth the C de Coriane.

From cape de Coriane it is south and north three leagues to cape de Finisterre: betwixt the two capes is a Sand-bay, where men may anckor to the eastwards of a great rock in six or seven fathom. This is a great Bay which goeth in far into the land. At the n. side of this Bay lye rocks under water, whereof men must take heed.

Seche. corck. Bayone.

About a league to the eastwards of cape de Finisterre on the south side, lyeth the Haven of Seche or Corcovia, and is called by the Dutch Schippe-masters, Corck Bayone. Betwixt this Haven and the cape lye two sand-bayes, the first, or that which is next unto the cape, is the greatest, and by the second goeth in this Haven north, in eight and nine fathom. On the east side of the Haven lyeth a great Rocke, and about southsouthwest off from that Rock, almost in the middest of the Haven, lyeth a suncken rocke under water: but run in n. untill you espye the towne on the west side, and anckor there in 6 or 7 fathom. Within upon the River lyeth also a Village, or little Towne, about North N. e. from you.

Moores.

From cape de Finisterre to the Haven of Moores, the course is southeast 5 great leagues, when you come about the cape de Finisterre, you shall see a high ragged hill which runneth so farre to the southwards, that you may see it also before Moores, that is a good mark for to know the land by thereabouts.

When the foresayd ragged Hill is Northeast from you, then are you thwart of cape de Finisterre, and then the hill Monte Lauro, which lyeth upon the northeast point of Moores, lyeth e. n. e. from you, that is a high cloven hill which is also good to know.

Southeast three little leagues from the cape de Finisterre, lyeth a rane of rockes under water, and eastsoutheast about two leagues from these rockes, lye also some rockes aboue water, a little to the northwards of Monte Lauro, or the Sound of Moores, and lye from Monte Lauro west and by south. Also there lye a deale of rocks to the southwards of this Sound of Moores, and right in the midst of the Sound lyeth also a suncken rock about southeast off from Monte Lauro.

For to saile into Moores.

He that wil saile into Moores, he must bring Monte Lauro northeast and by north of him, and saile in so right with it, & then he shall not come to neere the fowle ground or dangers: when he cometh then by Monte Lauro, he shal see the foresayd rocks lying out to the northwardes of Monte Lauro, he must leave them as also the point of Monte Lauro two or three cables lengths on the larbord side of him, and saile in so alongst by them, untill that he come past the second poynt, leaving the suncken rock (which lieth in the midst of the Sound) on the starbord side of him: and when the fisher village which stands to the northwards of Monte Lauro, cometh to stand altogether bare, then he is within the Suncken rock which liet in the midst of the Sound south and by east casterly from the east end of the forefayd Fisher village.

When you come by the second poynt, you must runne in about it within a cables length, & edge up to the northwards, until you come before the village, or up to the westwards before the towne, where you please, and anckor there in 12 or 13 fathom.

For to saile into Rio Roxo.

If you will salle into Rio Roxo, then run about without the rockes, which lye to the southwards of the Moores, and goe in southeast & by south, untill that you come before the Haven of Rio Rosso, or Roxo, then you shall see a geat many of rocks, lying off from the northland, almost unto a great rock, or Iland, called Salure: betwixt these rockes that lye out there, and the Iland Salure, you may well run through about to the northwards of the Iland, but it is very narrow, by reason of the aforesayd rockes, which lye off from the north land, therefore sayle about to the southwards of the same Iland, indifferent close alongst by it, leaving it on the larbood side, or to seawardes of you untill that you see the Sound open, and then runne in keeping the middle of the channel, unto that Iland Roxo, which you shal see lye in the middest of the haven, when you come neere it, you may ankor under the southland, there are two Sand-bayes, where is good anckor ground.

About two leagues southwest from Rio Roxo lyeth a suncken rock, Iohn Claesz. Bors of Sardam, did sayl upon it, and there lost his shippe the 20 of February 1613. in the night.

Ponte Vedra. M. carbela Blydones.

From Rio Roxo, or the Iland Salure, unto Ponte Vedra, or the Iland Blydones, the course is southsoutheast foure leages, betwixt them both lyeth an Iland called Monte Carbela; within it, it is three fathom deepe. Right before the haven of Ponte Vedra lieth the Jland Blydones, which men may sayle round about. On the north side it is not deeper then five or sixe fathom. : there lye also within the Sound, on the north side two rockes called the Boos or Oxē. On the south side of Blydones is the right fareway for to sayle into Ponte Vedra, this haven lyeth in northeast until within the Iland; somewhat further in the midst of the haven lieth also another litle iland, which you must also goe to the southwards of, therefore goe in eastnortheast alongst by the southland, until that you see the flat tower which standeth upon the southland, & then you must run over a banck, right on with the point of Ponte Vedra, within it lyeth the towne, thwart of the flat tower men may anckor in 8 or 9 fathom: This haven is at some places 40 fathom deepe.

Iland of Bayone.

Five leagues to the southwards of the Ilands of Blydones lye the Jlands of Bayone, when men come in out of the sea, right with them, then these ilands doe seeme to be all gray and black rockes, and lye to see to, as if they were three Jlands, although that the sea do run through them, but at

one place, betwixt each is a saddle or valley.

Within the land alongst over these Ilands, men shal see two high hills very good to be known, the eastermost hath three high hommocks, and the westermost two with valleyes betwixt the hommocks; a little to the eastwards of the eastermost hill men shal see a white Abbey stand against the high land, whereby this land is very good to be knowne.

For to saile into Bayone, from the northwads.

You may saile within these Ilands of Bayona either to the northwards or to the soutwards; but at the northeast point of the Ilands lyeth a rocke under water, about a cables length off from them, where of you must take heed, and ankor in 10, 11, or 12 fathom on the east side of the Ilands.

Vrge. Cannas.

He that will sayle in to the northwards, must run in betwixt the Ilands and the maine land, keeping neere about that middle of the channel, but nerest to the Ilands, untill that the Sound of Vigo, or Cannes bee open, and then sayle in to the eastwards, there is a broad Sound, where men may ankor on both sides, to wit, on the south side before Vigo, and on the north side before Cannas in twelve or thirteene fathom.

Also men may sayle further in about the south point of Rondella, where men may save a shippe in the oaze, without ankor or cable.

At the point of Vigo lyeth a little Iland; he that commeth in to the northwards of the Ilands, & is bound in for Bayone, may sayle through betwixt that little Iland and the point Vigo, right in with Bayone, to wit, alongst a little to the westwards of the point, untill hee come before the towne, and ankor there in 4, 5, or 6 fathom.

Betwixt that foresayd little Iland, and the point of Vigo, it is at high water 4 fathom and a halfe, and at low water three fathom and a halfe deepe, men must (sayling through there) giue the point of Vigo a birth, because of some sunken rocks that lye off from it. When that men lye in the roade before Bayone, in 5 or 6 fathom, they may see the Ilands of blydones through betwixt the foresayd poynt of Vigo, and that little Iland.

From that same little Iland lieth to the westwards another little Jland or rocke, betwixt them both it is fowle, so that men cannot saile through betwixt them, and from that westermost little Iland lyeth a fowle riffe or ledge of rockes, southwest off towards the point of the land of Bayone, where of men must take very good heed, whether you com from the northwards and will sayle through betwixt that riffe and the Jlands of Bayone, or els come in from the southwards, betwixt the Jlands and the maine, ane wil goe in for Bayone.

That riffe lyeth at low water at many places dry, the outermost rockes there of, and the poynt of Bayone, where the Castle standeth upon, lye southeast and southeast and by east, and northwest and northwest and by west an English mile asunder, therefore he that commeth from the northwards, and wil goe into Bayone to the westwards of that riffe, that is betwixt the riffe and the Ilands let him goe so long to the southwards, untill that the Castle of Bayone come to be e.s.e. and east and by south from him, & saile then towards it, and then he shal run farre enough alongst to the southwards of it.

At the south end of the Iland of Bayone, lyeth a geat rock, with a deale of smal rockes round about it, men may sayle very close alongst by them, but at high water the outermost rocks lye under water, where of men must be mindful, close by the rocks it is 20, and 25, and 26 fathom deepe. From the poynt of the maine land over against the south end of the Ilands, runneth off a ledge of rocks, wherupon it breaketh very much, when the sea is grown, where of also men must take heed.

For to saile into the southwards of the Jlands.

When you come from the southwards, or out of the sea, and wil sayle in for Bayone, about to the southwards of the Jlands with a southerly or southwest winde, then run right with the south poynt of the outermost land of Bayone, untill you come neere about a halfe league off the land, and then alongst by the shore, unto the outer point on the south side of the comming into the Bay, where that foresayd riffe runneth off, which lyeth off low, giue that riffe a birth, and runnet in betwixt it and the foresayd rockes at the south end of the Ilands, northeast, or eastnortheast in, according as you shal come in out of the sea, leaving the riffe on starboord, and the rockes with the Ilands on the larboord side until that you come to the end, or to the northwards of the riffe, the north end, or the outermost point of that riffe at the south point, and the point Bayone where the Castle standeth upon, lye nearest east and by north, and west & by south a little league asunder. When as then you haue the foresayd riffe (on the south side) upon your broad side, or els are to the northwardes of it; and that the Castle doe stand east, or thereabouts from you, goe then right in with the Castle, laving that foresayd other riffe (which lyeth off southwest from the little Jlands at the poynt of Vigo) on the larboord side of you. If you bring the poynt of the Castle, not to the southwardes of e.s.e. then you can not take any hurt of the northermost riffe.

The outer rocks of that northermost riffe, (which shooteth off from the two foresayd little Ilands) and the riffe, which shooteth off from the south poynt of the land of Bayone, where men must sayle through betwixt, lye one from the other southwest, and southwest and by south, and northeast and northeast and by north about an Englisn mile asunder. When you come neere the Castle, then come no very neere the shore, which is not very cleane, and when, as then you come thwart of the innermost poynt of the castle before that you begin to see the towne of Bayone, from behind the point, you must looke well out before you: for from that same innermost poynt, and from the Castle, there lyeth off a suuken rock about halfe a cables lenght from the foresayd poynt, whereupon remaineth at low water no more then nine or ten foote water, keepe therefore (thwart of it) somewhat off from the poynt. When as you begin to see the towne of Bayone, then luffe up suddenly south and sayle before the towne, and anckor there in five or sixe fathom, where you please, or els that the poynt of the Castle come against the westermost Iland of the two which lye off from the north poynt of the Bay, or poynt of Vigo, there it is good oasie ground that holdeth vvel; set your anckors when you morne, northwest and southeast, the best anckor to the southeast; from thence over the high land you shal haue commonly the hardest vvindes.

For to saile into Vigo or Cannas from the southwards.

If you must turn to & againe into the bay, then take very good heed, when you run off from the Castle, that you run not to far over southsoutheast, right before the tovvne, southeast and by east, and eastsoutheasf from the roade r- bout a musketshot, lyeth another sunken rock, vvhich at low water is even uncoverd, it lyeth a smal cables length off from a little point in the south point of the Bay, whereupon standeth a little house, to see to a farre off like a great green rock; you must be very carefull of it; especially when you runne over towardes the southsoutheast.

But he that is bound into Vigo or Cannas to the south wards of the Jlands, shal sayle in betwixt that southermost iland and the poynt of the land of Bayone, al alongst in the middle of the channel, northeast, or northeast and by north in, at least two great leagues, keeping the norther haven two shipps length open, so long untill Cannas come to the northland without the poynt of Vigo: and then he must leaue the poynt of Vigo on the starbord side of him, & run in (keeping the middle of the channel) betwixt the northland and the towne Vigo, and anckor there either before Cannas or Vigo, where hee pleaseth in ten or twelve fathom.

S. Rcho.

A little to the northwards of Camina, lyeth on the coast a high steep hil, aboue in the top with a clift or saddle, being called S. Rego, it is almost of fashion like Monte Sauro, but at least once so high againe, this hillis a very good mark for to know the places thereabouts. About halfe wayes betwixt this hil and Bayone, lyeth an Abbey upon the side of the land, that is also a good marke for to know Bayone for him that commeth from the southwardes, but the chiefest markes are the two foresayd high Hilles within Bayone, the one with two, the other with three hommocks when that with the three valleys or saddles is e.s.e. from you run in then right with it, you shal not faile to fal with the land, right vvith the Ilands.

Camina.

Fiue leagues to the southvvards of the Ilands of Bayone, lieth

lyeth the haven of Camina, a broad haven, where you muſt go in (with great ſhips) at the higheſt water. In the havens mouth, which lyeth in northeaſt and by eaſt, lyeth a rock neereſt the ſouth ſide; cloſe to the northwards of this rock, is the deepeſt water, for to ſaile in or out. Within in the haven, on the north ſide, lyeth a little Jland, and upon it ſtandeth a little tower, you muſt keep that over the tower which ſtandes upon the north land, and ſo muſt run in right with them.

In this havens mouth is at halfe flood two fathom water.

At the north ſide of the haven it is altogether ſhowld water, and very rocky and fowle: there ſhooteth off a ledge of rocks, or riffe, whereof men muſt take good heed.

Viana. Seven leagues to the ſouthwards of Camina lyeth Viana upon a river. From the north poynt lyeth off a ledge of rockes thwart over before the mouth of the river, and upon the ſouth ſhore, ſtand two Firetowers. If you wil ſaile in to this river of Viana, comming from the northwards, or out of the ſea, then run ſo long to the ſouthwards untill that the two foreſayd Fire-towers upon the ſouth ſide of the rivers mouth, come one in the other, and then run in right with them towards the ſtrand, untill that the little tower upon the north land come over the two houſes; keep them one in the other, and runne then to the rock with the maſt, and ſaile alongſt cloſe to the eaſtwards of it, and then you run in alongſt over the Barre or the ſhowldeſt of the rivers mouth, there is at low water with an ordinary tyde two fathom depth. When you are paſt the foreſayd rock with the maſt then you ſhal ſee yet a head another rock with a maſt or beacon, which lyeth on the north ſide of the river: run in likewiſe cloſe alongſt to the ſouthwards of it, and afterwards indifferent cloſe alongſt by the northland, until you come before the town, there runneth of ſometimes a little riffe which you muſt giue a birth to, and anckor before the town. When you lye before the towne, there lyeth a little Iland to the ſouthwards of you, whereupon ſtandeth a little Chappell: to the weſtwards of that little Iland lyeth a great Banke, which at low water is uncovered, behind that banck it is five and ſixe fathom, and before Viana ſeven, eight, and nine fathom deepe; when you come in, they may run in about to the ſouthwards of this foreſayd Banck, and come out again before the town, by the little Jland, where the little houſe ſtandeth upon.

When you come in about a bow ſhot within the ſecond rock with the maſt, there you may well let fall your anckor and bring Cables on the ſouth ſhore, and morre there by foure cables.

Men may anckor with out in the road in 12 fathom, there is the cleaneſt ground for to take in a Pilot. Jt is a narrow

Villa del Conde, and dangerous barre for to come into.

From Viana to Port a Port the courſe is ſouth & by eaſt 12 or 13 leagues, betwixt both lyeth Filla del Conde, 7 leagues from Viana and from Metelyn. Villa del Conde is a broad haven, before the havens mouth lye many rockes, where men may ſayle in about them on both ſides, to the northwards or to the ſouthwards of them it is five and ſixe fathom deepe; further in lyeth a banck thwart over the haven of two fathom at high water: within in the haven it is 3 or 4 fathom deepe, on the north ſide it is all full of rocks, which lye moſt under water, but on the ſouth ſide it is deepeſt and ſureſt, and good lying in five and ſixe fathom.

Rockes. Leſons. Foure leagues to the ſouthwardes of Villa del Conde lye out the great rocks called Leſons, right before a little broad haven of two fathom depth, called Mettelyn, and ſouthweſt from the ſouth point of the foreſaid rockes Leſons; about a halfe league to ſeawards, lyeth a ſuncken rock under water: betwixt the land and the Leſons it is 6 and 7 fathom deep.

Port a Port. A league to the ſouthwardes of the rockes Leſons lyeth Port a Port. From the north poynt of the rivers mouth lye off many rockes, almoſt thwart over the channel, For to ſayle in there, you muſt run in cloſe alongſt to the ſouthwaades of the outermoſt rock, even ſo neere by it, that you may caſt with a ſtone upon it. There ſtandeth a little chappel upon the north ſhore right againſt the rock with the croſſe, and alſo a little white houſe upon the north ſhore ſomewhat further up upon the river, bring them one in the other, and run in ſo right with them until you be paſt the Caſtle. In ſayling in ſo, you ſhall not finde leſſe upon the ſhowldeſt of the Barre, then 17 or 18 foot water at halfe flood, and ſhal not come to neere a ſuncken rock, which lyeth without in the rivers mouth, ſomewhat neerer the ſouth ſhore then the north, whereupon there remaineth at low water no more then 11 or 12 foote water. Being within the caſtle, goe then right towardes the rock with the croſſe, and ſo cloſe alongſt to the ſouthwards of it, that you may reach it with a boat hook, or els you muſt run in there or 4 ſhippes lengths to the ſouthwards of it, or alongſt by the ſouth land, until you be paſt the rock with the croſſe, for to avoyd a ſuncken rock, which lyeth thwart of it a little to the ſouthwards of it, and at low water is no more then 8 foot under water. Being a little paſt the rock with the croſſe, go then up alongſt in the middle of the channel, until you come thwart of a great white tower upon the northland, there you may anckor in 4 or 5 fathom, or ſayle before the towne, here it is 3 and 4 fathom deepe. A little paſt the rock with the croſſe is a ſhowld, whereupon remaineth at low water no more then 11 foot water, ſo that with ſhippes that draw 12 foote water, men muſt ſtay for high water, it floweth there ſix foot up and downe with an ordinary tyde.

On the ſouth ſide of the river goeth in alſo a Land-deep to the ſouthwards of the foreſayd ſuncken rock, which lieth in the rivers mouth, where the Pilots ſometimes bring ſhipps in and out; that is a good channel, and oftentimes it is eaſt to againe of the ſea, ſo that there is no certainty to be written of it, that men ſhowld truſt upon.

Of the Tydes and Courſes of the ſtreames.

On theſe coaſtes, as on the former, as ſouthweſt and north eaſt moone maketh high water.

A ſouthweſt and northeaſt moone maketh full ſea at the foreſayd places, on the ſea-coaſt, & within the havens a poynt later.

A northeaſt and ſouthweſt Moon maketh on theſe coaſts full ſea, like as on all the coaſtes lying on the great ſea, there goe alſo no ſtreames alongſt the land, becauſe (through the ſwelling of the Ocean ſea) the flood commeth right on againſt the coaſtes, and falleth right in and out at the Havens.

Courſes & Diſtances.

From C. de Pinas to Avilles ſ.ſ.w. 3 leagues.
From Luarca to Ribadeus w.ſ.w. 6 leagues.
From Ribadeus to Cape de Brillo n. 8 leag.
From C. de Pinas to Ribadeus ſouthweſt & by weſt 13 or 14 leag.
From Cape de Pinas to Ortegall weſt & by north weſterly, 29 leag.

How theſe landes doe lye one from other, and from other lands.

From Cape Ortegall to Siverus ſouthweſt 5 leagues.
From Siverus to Cape de Prior ſouthweſt 5 leag.
From Cape de Prior to Feroll ſouth and by eaſt. 3 leag.
From Feroll to the Groyne ſouth, & ſouth & by weſt 3 leagues.
From the Groyne to Ciſarga 8 leagues.
From Ciſarga to Queres, ſouth and by weſt, & ſouthſouthweſt 2 leagues.
From Ciſarga to cape de bylem, or the eaſt point of Monſy, ſouthweſt and by weſt, and weſtſouthweſt 12 or 13 leagues.
From Cape de Bylem to C. de Coriane, or Torrivian ſouthweſt 3 leag.
From cape de Coriane to cape de Finiſterre ſouth 3 leag.
From cape de Ortegall to cape de Prior ſouthweſt 10 leagues.

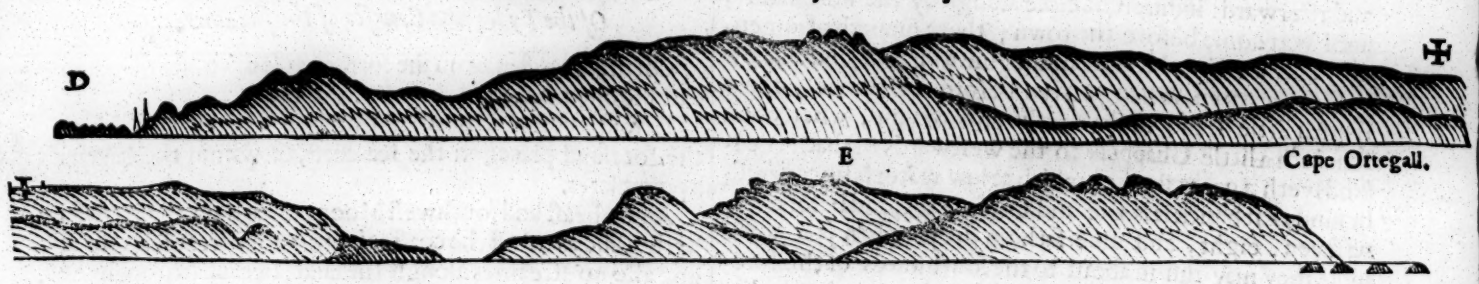
From cape de Ortegall to Ciſarga ſouthweſt and ſouthweſt and by weſt 19 leagues
From cape de Prior to Ciſarga ſouthweſt and by weſt nine leagues
From Feroll to Ciſarga weſt and by ſouth 8 leagues
From cape de Ortegall to cape de Corian ſouthweſt and by weſt 33 leag.
From cape de Ortegall to Waterford in Ireland north 168 leagues
From Ciſargo to cape Veio north 160 leag.
From Ciſarga to Silly north and by eaſt 137 leag.
From cape de Finiſterre to Moores, or Monte Lauro ſouth-eaſt 5 leagues
From Rio Roxo to Ponte Vedra ſ.ſ.w. 4 leagues
From Ponte Vedra, or Blydones, to the Ilands of Bayone ſ.ſ.e. 5 leagues
From Bayone to Camina ſouth and eaſt 4 leagues
From Cape de Finiſterre to the iland of Bayone, the courſe is ſ.e. and by ſ. 18 leagues
From cape de Finiſterre to Porta Port ſouthſoutheaſt 44 leagues
From cape de Finiſterre to Avero ſouth and by eaſt 53 leag.
From cape de Finiſterre to the Burlings ſouth 67 leag.
From cape de Finiſterre to the great Canaries ſ.ſ.w. ſouther-ly 307 leagues
From cape de Finiſtere to the Salvages ſouthſouthweſt 273 leagues
From cape de Finiſterre to the ile of Madera ſouthweſt and by weſt ſoutherly 197 leag.
From cape de Finiſterre to the ile S. Michael weſtſouthweſt 247 leagues
From cape de Finiſterre to the ile Tercera w. ſ.w. and w. and by ſouth 278 leag.
From cape de Finiſterre to the ſ.w. point of Ireland n. & by w. and n. 173 leagues
From cape de Finiſterre to cape de Claro North 173 leagues
From cape de Finiſterre to Waterford, or the Southeaſt poynt of Ireland, north and by eaſt 185 or 186 leagues
From cape de Finiſterre to the Lizart northnortheaſt 153 leagues
From cape de Finiſterre to the Seames, n. e. and by n. nor-therly 112 leagues
From cape de Finiſterre to Bell-ile n.e. 122 leagues
From Avero to the Burlings ſ.w. 20 leagues
From Bayone to the Burlings ſ. and by w. 49 leagues

Heigths.

Cape de Ortegall lyeth in	44 deg. 5 mi.
Cape de Coriane in	43 degr. 8 min.
The cape de Finiſterre lyeth in	43 degr.
Bayone lyeth in	42 degr. 10 min.

How theſe lands doe ſhew themſelves at Sea.

Theſe two figures following belong at the croſſes one to the other, and ſhew the riſing of the Land, a little to the eaſtwards of the Cape Ortegall, when the point marked with D, is five or ſix leagues e. and by ſ. or e.ſ.e. from you, and the hill marked with E, is ſ.ſ.w. from you weſterly.

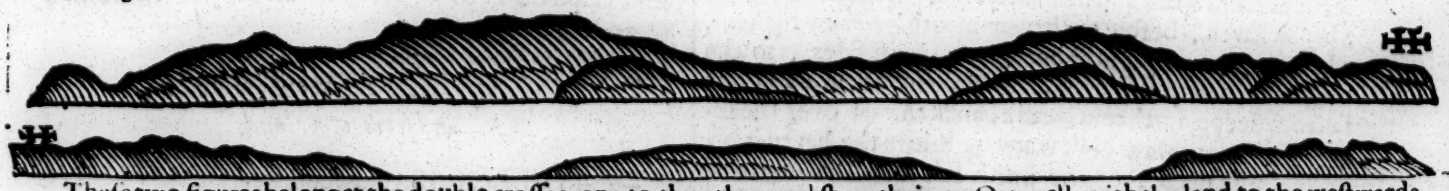


Thus ſheweth Ortegall, when it lyeth ſ.e. and by ſ. from you.

When Ortegall is ſ.e. from you, it ſheweth it ſelfe thus.

Thus ariſeth Ortegall, when the eaſtermoſt hill lyeth ſ.ſ.e. from you, and that you may ſee the eaſt end with cleare ſight, being eight, nine, or ten leagues off at ſea.

C. Ortegall.



Theſe two figures belong at the double croſſes, one to the other, and ſhew the cape Ortegall, with the land to the weſtwards of it, when the foreſaid cape is eaſt and by ſouth five or ſix leagues from you.

The land to the eaſtwards of the Groyne ſheweth thus, when it is ſouth and by eaſt from you.

Cape Prior the eaſt poynt of the Groyne ariſeth in this forme.

Cape Prior being ſouthweſt from you 6 or 7 leagues ſheweth it ſelfe thus.

Cape

Cape Prior, being ſouthweſt and by ſouth from you 4 or 5 leagues, ſheweth it ſelfe thus.

Cape Prior.

When the cape de Prior is eaſt and by north, eaſterly, 3 or 4 leagues from you, it ariſeth in this forme.

Thu ſheweth the Iland of Ciſarga, when you are one league thwart from it.

Thus ſheweth the land of Monſie, betwixt Ciſarga, & cape de Finiſterre, when you come from the eaſt, and ſayle alongſt by it.

When cape de Finiſterre is ſouthſoutheaſt from you, then it ſheweth thus.

The cape de Finiſterre, being ſoutheaſt ſoutherly from you, ſheweth it ſelfe thus.

Thus ſheweth cape de Finiſterre when it is ſoutheaſt eaſterly from you.

When cape de Finiſterre is ſoutheaſt and by eaſt from you 5 or 6 leagues, then it ſheweth it ſelfe thus.

Thus doth cape de Finiſterre ſhew it ſelfe, when it lyeth 5 or 6 leagues eaſt and by ſouth from you.

Monnick.

A

Theſe 3 figures following belong one to the other, at the letter A A and B B, and ſhew the riſing of the Capes de Corian and Finiſterre, as is ſhewed in the deſcription here under following.

A

The cape de Finiſterre ſheweth it ſelfe with the land to the ſouthwards of it, as is portrayed in this & the figure following. when the ragged hill ſtandeth eaſt from you 3 or 4 leagues, & then you ſhall ſee the land to the northwards of it, unto cape Coriane, northeaſt, unto paſt cape Coriane, in forme, as in the figure before this.

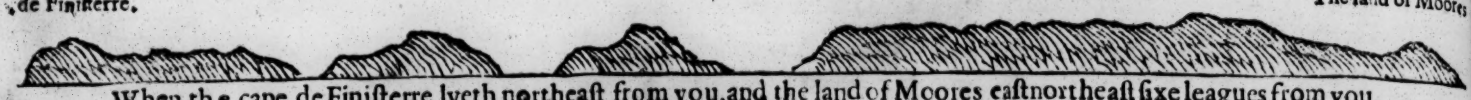
B

This followeth the former, and lyeth from the cape off ſoutheaſt and by ſouth.

Thus ſhewed the cape de Finiſterre, when the ragged hill lyeth eaſtnortheaſt, eaſterly from you, and then the land of Moores lyeth from you eaſtnortheaſt, as is here following demonſtrated.

Thus ſheweth the ragged hill of cape de Finiſterre, when it lyeth eaſt and by north from you.

C. de



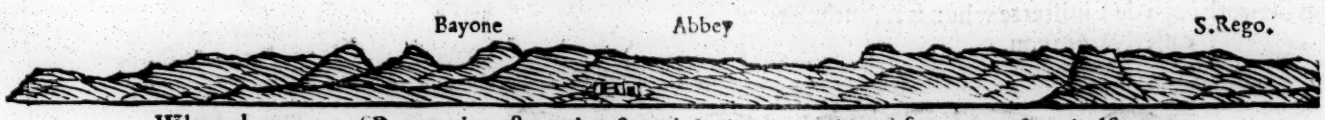
When the cape de Finiſterre lyeth northeaſt from you, and the land of Moores eaſtnortheaſt ſixe leagues from you, then lyeth the cape in three parts, and the land of moores thus.

When the ragged Hill betwixt the cape de Finiſterre and Moores lyeth eaſt and by north from you ſix leagues off, then it ſheweth thus.

When the high land of Moores is northeaſt & by north from you about 6 leagues then it lieth in this forme.

When cape the Finiſterre is northeaſt or northnortheaſt, and Monte Lauro is eaſtnortheaſt five leagues from you, the high land of Moores ſheweth it ſelfe thus;

Thus ſhew them ſelves the Ilands of Bayone, and the high land to the ſouthwards of them, when the foreſayd Ilands are eaſtſoutheaſt a league or two from you.



When the poynt of Bayone is eaſtnortheaſt, and the high land is eaſt from you, then it riſeth thus, to the ſouthwards of it lyeth the high Hill of S. Rego.

When the high Hill *S.* Rego is eaſt from you, then the high land of Bayone ſheweth it ſelfe thus. The Abbey ſtandeth about halfe wayes betwixt S. Rego & Bayone.

Thus ſheweth the coaſt of Poltingall from Bayone to Cape Montego, when you ſaile alongſt by it, about foure leagues off, the figure following belongeth hereto, at the croſſes one to the other.

When that black Hommock where the hand ſtandeth by, is eaſtſoutheaſt from you, then are you thwart off, or open before Avero.

Thus ſheweth the Land of Viana, and to the ſouthwards of it the Hommock by B is 2 leagues to the northwards of Villa de Conde

The land by Viana, and to the ſouthwards of it towards Villa de Conde, ſheweth as is portraiyed in this and the figure following, by V, is the rivers mouth of Viana.

This followeth the former figure, the Hommock at C is two leagues to the northwards of Villa de Conde.

Duytsche mijlen 15 voor een graadt Lieues d'Allemaigne
Spaansche mijlen 17½ voor een graadt Lieues d'Espaigne
Eng en Frã. mijlen 20 voor een graadt Lieues Angl. et Franc

Soutlandt
Aveiro
Soutlandt
Incaia
Lagos
Figuero
Rio le Mondego
St. Catrina
Buarcos
Piffage
C. de Mondego
PORTG
Penich
Setubal ofte St. Yves
't Landt van Troiana
Blauweberch
Troia
Slot van Palmelo
't Withuys
't Witte Slot
Les Bancques
C. de S. Vincente
Lagos
Vogelbergen
Villa nova
Silvis
Duytsche mijlen 15 voor een graadt
Spaansche mijlen 17½ voor een graadt
Eng en Fra. mijlen 20 voor een graadt
Faraon
C. de S. Maria

De Cuſte van Portugal van Aveiro tot S.t Vves hoeck Nieulycx beſchreven by Iacob A. Colom.

Les Coſtes de Portugal entre Aveiro et Cabo S.t Vincent

Slot van Palmelo

Wit huys

't Wite Slot

Les Blanques

Soutlandt

Alcouchete

Couua

Palhais

Zizembre

Rio Diguiſan

S.t Vves hoeck

C. de Spichel

Lisbona

Almada

Boſco

Betleem

Belyers

S. Catrinen Cloyster

Terfaria

Zuider cachops

Crake dier

Noorder cachops

S. Giglis

Syntra

M. d. Roxent

C. Roxent

TGALLIÆ.

ARS

Vertooninghe vant landt Tuſſchen S.t Vves en Vygebergen Capo de S.t Vincent

Duytſche mylen

Lieues d'Allemaigne

Salines

C. de S Vincente

De Cuſte van Algarve van S.t Vincent tot verby Palos

Lepe

S. Maria

Caſtromarin

Aimonte

Taron

Odier

S. Miguel

S. Ian del Puerto

Guelva ofte Tolues

Moguer

Palos

Saltees

Xavega

Cilf

S. Maria

XXXVIII

The high land of Viana.

Thus ſheweth the foreſayd land of Viana, & to the ſouthwards of it, when Viana (being by A) is northeaſt from you 10 leag.

Mettelyne thwart from you.

Thus ſheweth the land by Mettelyne, when Mettelyne is thwart from you and that you are cloſe by the Land.

Gaſtle on the north ſide of Port a Port, when you come from the northward by the land

The land to the northwards of Port a Port.

This figure belongeth to the former, & ſheweth the forme of the land by Port a Port, and to the ſouthwards of it, when you come from the ſouthwards, you ſhall ſee a little village, within the caſtle of Port a Porr, called S. Iohn. A league to the northwards of it lyeth Mettelyn.

The Land to the ſouthwards of Port a Port.

Avero.

Thus ſheweth the land betwixt Port a Port and Avero, when the high land to the ſouthwards of Port is eaſt and by ſouth from you 4 leagues.

Abbey.

Thus ſheweth the land of Port, when you come from the ſouthwards.

Thus ſheweth the land of Port a Port, when it is eaſtſoutheaſt from you about foure leagues.

Viana.

Villa de Conde.

Port a Port.

Thus ſheweth the land from the northwards of Viana to Port a Port, when you ſaile alongſt by it.

Port.

When Port a Port is ſoutheaſt from you ſeven or eight leagues, then it ſheweth with the land to the northward of it in this forme.

The fourth Demonſtration,

In Which

The Coaſtes from Port a Port to Palos are deciphered.

FRom Port a Port to Avero, the courſe is ſouth ten leagues: betwixt them both it is all alongſt a cleane ſand-ſtrand, where men may be bold to come neere the ſhore every where in ten or twelve fathom.

Within the land upon the high land lyeth a black hommock in the land, when that lyeth e. ſe. from you, then you are open before Avero: when you cannot ſee the black hommock Carmole, then lyeth there a rough ſand-hill to the northwards of the Barre, when that is thwart of you, then are you a halfe league to the northwards of the Bar of Avero.

If you will ſayle in over the Barre of Avero, and that you come before it in ſixe or ſeven fathom, then take heed to three beakons made of maſt, which ſtand upon the ſouth-land, bring them one in the other, and ſayle in ſo right with them eaſt and by ſouth, and e. ſ. e. in over the barre, there is in comming in, at halfe tyde, no more then two fathom water, untill that you come by the beakons, you ſhall ſo (being come within the poynts) ſaile alongſt by a dry ſand on the larbord ſide, edge then up northnorthweſt, and northweſt about by that foreſayd dry ſand, untill you come cloſe to the norther land, and run in by it, and then you ſhall leave all the other ſhowlds on the ſtarbord ſide, untill that you ſee the river open, & then you ſhall ſee a little houſe

upon the ſtrand on the weſt ſide, goe then frō thence up into the river, eaſt and by ſouth, and eaſtſoutheaſt, keeping the middle of the channel betwixt the two lands, untill you come before the Saltponds or Avero, where you may lade your ſhip with ſalt.

The coaſt of Portingall about Viana, is very good to be knowne, by the foreſaid hill of S. Rego, which is exceeding high, & lyeth on the ſea ſide: the high land of Viana lyeth two or three double within it.

Betwixt Viana, Villa de Conde, and Port a Port, men ſhall ſee alongſt the coaſt many towers and little houſes, Villa del Conde men ſhall ſee at ſea like a great towne.

The River of Port a Port men may knouw by the rocks Leſons, they are very high, and lye a little to the northwardes of the River.

The Cape de Montego is a high poynt, and within it in the land are high mountains. The Cape is ſomtimes taken to be the Rock, but is eaſie to be diſcerned from it, becauſe of the Burlings, which lye here to the ſouthwards, and to the northwardes of the rock.

The cape de Montego lyeth from Avero ſ.ſ.w. diſtant 7 leagues: a league to the ſouthwards of it lyeth Piſſage, or the River of Montego, a broad haven. From the cape de Montego runneth off a rowle ledge of Rocks, a good wayes from the ſhore, which men muſt avoyd. Under the cape men may ride for northerly winds in ſeven or eight fathom a northnorthweſt wind commeth right from the poynt, for ſoutherly windes men may ankor to the ſouthwards of the river of Montego.

From the ſouth poynt of the river runneth of a ſand-riffe; when you ſaile in there, & that you come in out of the ſea, it ſheweth as if you might ſaile into the ſouthwardes of that riffe, but it is not to be done: you muſt ſaile into the northwards of it. Upon the north poynt ſtandeth the little village S. Catharina, & a little to the northwards of it a Fiſher village, called Buarcos. Upon the north ſide within the havens-mouth ſtandeth a lime kill, with a wood of Fig-trees, when you bring them one in the other, & then ſaile ſo right in with thē, you runne in right in the channell, there is ſomtimes no more then twelve or thirteene foot water at halfe flood: you may not certainly truſt to the deſcription of this haven; for in regard it is there ſand-ground, it doth ſhift ſometimes with the great Freshuts that come of the River, and alſo with ſtormes out of the ſea. From cape de Montego to Peniche, or nova Lisbona (at the Cabo del Fiſiron, which is the poynt within the burlings) the courſe is ſouthweſt & by ſouth ten leagues, there lyeth of a rock from the poynt, to the ſouthwards of it is a great bay, where men may runne in behind it with barks, & lye landlockt. In that bay lyeth a little town againſt the high land called Artogie, a little to the ſouthwardes of the cape del Fiſiron lyeth a high round hommock, which the Dutchmen call yong Roxent.

From the cape Montego to the Burlings, the courſe is ſouthweſt twelve or thirteene leagues. Behind the Burlings is a good roade & ankor ground, under the great Iland before the Ermitage, then you may ankor in then fathom, you may come in there from the northwards or from the ſouthwardes, it is there broade and wyde, & every where cleane.

From the Burlings to the Rock, or Roxent the courſe is ſouth & by eaſt, & ſouthſoutheaſt ſixteen leagues, but from the cape del Fiſiron (behind the Burlings) to the Rock the coaſt lyeth ſouth & north fifteene or ſixteene leagues. The Rock or Roxent is a poynt of land, very good to be knowne, although you be a great wayes off, yet you ſhall alwayes ſee the ſharpe hommock of the Abbey of Syntra.

Caſcalis. A great league to the eaſtwards of the poynt of Roxent, or the Rock, lyeth the road of Caſcalis, where men may lye land-lockt for a northweſt, north, & northeaſt winde, in twelve or thirteene fathom, ſo deep or showld as they will.

S. Gil'ias. or S. Gillians. A great league to the eaſtwards of caſcalis, lyeth the poynt of S. Julian, or S. Gillians, whereupon ſtandeth a ſtrong caſtle, that is the north poynt of the River of Lisbone, the norther channel of the River goeth in within a bowles caſt alongſt by it.

For to ſaile in at the norther channell. For to ſayle into the norther channell, you muſt run in, alongſt within the length of a maſt alongſt by the foreſayd poynt, but comming before the caſtle of S. Gilliās, you muſt edge ſomewhat over towards the Carrich deepe, for to avoyd ſome fowle ground and rocks, which lye on the eaſt ſide of the Caſtle. Being paſt that a litle, you may luffe up againe towardes the north shore, and ſayle alongſt by it to Reſtiers, and ſo forth even to Lisbone, men doe commonly anckor before the Village of Bolyn in twelve or thirteen fathom. Men muſt take heed not to come into this channell with calme weather, and with an ebbe, which falleth very ſtrong upon the norther Cachops: this channell of S. Gillians lyeth in eaſt and by ſouth; being within, you muſt ſayle up eaſtnortheaſt, and northeaſt and by eaſt, and when you com againſt the Abbey at Reſtiers, then you muſt edge ſomewhat over towards the ſouth land, els you muſt kepe the northland all alongſt.

For to ſaile in at the Carrick deepe. For to ſayle into the Carrick deep, you ſhall bring Caſcalis, over the weſt poynt of Roxent, and keepe it ſo, untill that the little tower (which you ſhall ſee ſtand above the Abbey at Reſtiers) come over the white Abbey which ſtandeth the fartheſt from Reſtierts, to wit, over S. Katherines Abbey or Cloyſter, goe then northeaſt, and northeaſt and by north in, keeping theſe marcks ſtanding thus, untill that you come within the poynt of S. Gillies, and then goe in alongſt by the northland to Reſtiers within the Caſtle, and ankor there where you thinck it beſt. Upon theſe markes you may ſayle in and out at the Carrick deepe. If you come from the weſtwards, and will goe in to the Carrick deepe, thē bring Caſcalis over the weſt end of Roxent, and ſayle ſo about the norther Cachops, untill that the town of Lisbone come within two ſhips lengths neere to the ſouth ſide of the River, & then further in northeaſt and by north, when as then you ſhall ſee the ſand-bay within the poynt of S. Gillians, then are you in the right fareway.

But if it ſhould happen, that you could not ſee the towne, or the litle tower, then keep the ſand-bay (which lyeth within S. Gillians point) northeaſt and by north from you and ſayle ſo northeaſt and northeaſt & by north in, and take the ſounding of the norther Cachops in eight or nine fathom: when you begin to come againſt S. Gillians poynt, ſayle then indifferent cloſe along by the northland, as is before ſayd.

He that will turne out or in to the Carrick deepe, muſt bring the foreſayd litle tower that ſtandeth within the land, a ſhipps length to the ſouthwards, & a ſhips length to the northwardes of the foreſayd Abbey or Cloyſter of S. Katherines, and then caſt about every time, and ſo turne to and againe out and in.

Alſo come not with calmes in this channell, (neither bound inwards nor outwards) with an ebbe, for it falleth very ſtrong over the eaſt end of the Cachops.

If you will run out at the Carrick deepe, you muſt looke out for the foreſayd little tower: when it cometh out from under that high land, bring it then a little to the weſtwardes of the ſecond white Abbey or cloyſter, and goe away ſouthweſt and by ſouth, & then the litle tower ſhall come to the Cloyſter.

But if you muſt turne out to and again, then you muſt be very carefull of your tyde, for the ſtreames fall very ſtrong over the Cachops, ſo that it is very dangeros with calmes to come in or out at theſe channels, but eſpecially in ſailing out with an ebbe, for it falleth thwart over the Cachops.

S. Vves poynt. From Roxent to S. Uves poynt, the courſe is ſoutheaſt and by ſouth ten leagues, that is alſo a poynt good to be known, by a high round hill which lyeth on it, alſo men ſhall ſee the top of the caſtle of Siſembre upon a flat hill like a great top or ridge of a countrey houſe.

S. Uves poynt is called cape de Pitcher, and by the Dutchmen cape de Spichel, a little to the ſouthwards about the poynt, is a rent or clift in the land, before it is good riding in 9 and 10 fathom. Before Siſember men may alſo anckor in 15 or 16 fathom.

Road under S. Vves poynt. Five leagues to the eaſtwardes of cape Pitcher, or S. Vves poynt, lyeth S. Uves, there lyeth a great banke before the

havens

havens mouth. Beneath the high land upon the water side, ſtandeth a white caſtle, when that is northnortheaſt from you, then are you right before the havens mouth.

For to ſaile in over the bancke before S. Yves.

If you will ſayle over the bancks into S. Uves comming off from C. Pitcher, or S. Uves poynt, then keepe the weſt poynt of Siſember a ſhips length without the eaſt poynt, and goe then eaſt, and eaſt and by north on, untill that the caſtle of Palmelo which ſtandeth above S. Uves, commeth in a valley over the foreſayd white caſtle upon the water ſide. Sayle then northnortheaſt right in with them, untill you come within the caſtle that ſtandeth upon the water ſide, and then in along within a cables length by the northland, northeaſt and by eaſt, untill you come before the towne of S. Uves, or Setuball. But when the Caſtle of Palmelo commeth under the land, that you cannot ſee the ſame any more, there ſtandeth alſo a white houſe on the north ſide of the caſtle that ſtandeth on the water ſide, keepe that then ſo ſtanding, and run in right with them, untill you come within the white caſtle, and goe then in (as before is ſayd) alongſt by the north land, untill you come before the towne of Saint Uves, and anckor by the ſame towne, before the Fiſher village, in ſixe or ſeven fathom. Upon the banke is at halfe flood three fathom and a halfe water, when you ſayle in over it, you ſhall finde at leaſt ſeven divers ſhowlds, There goeth in alſo a channell alongſt by the ſouthland, but that is onely for barkes: betwixt this ſouther channell and the right deep lye the bankes as ſome places ſo ſhowld, that they lye almoſt above water.

For to finde the deepeſt water in ſayling out over the banck of S. Uves, with ſhippes that draw much water, doe thus: when you ſayle out from the white caſtle, then bring the foreſayd white houſe over the north ſide of the caſtle. that ſtandeth on the water ſide, ſo that you may ſee directly through betwixt them, and keepe them ſo ſtanding, untill S. Uves poynt begin to come without the eaſt poynt of Siſember, then bring the white houſe to the ſouth ſide of the Caſtle, and run ſo out, you ſhall have there the deepeſt water. But when you can ſee that caſtle of Palmelo, that is a direct alongſt marck for to run over the bancke: And then that white caſtle muſt be from you northnoortheaſt northerley.

It is from S. Uves poynt to cape de S. Vincent ſouth & ſouth and by eaſt 29 leagues betwixt both are no knowe havens. Salines a little river lying halfe wayes, is alſo unknown.

From Saint Uves to Cape S. Vincent, the coaſt lyeth moſt ſouth & by weſt about 32 leagues, betwixt both lye ſomehigh ſteep hils, which men doe call the Salines, which are very good marks for to know this coaſt by, but above all ſerve for the knowledge of this coaſt of Algarve, or of the cape de S. Vincent, the Vigheberghen, or Mount Chigo, which lye within Lagos and may be ſeen farre off at ſea. A halfe league to the northwardes of cape S. Vincent lyeth a high cliffe in the land, that is ſomewhat whitiſh, and higher then the other land; when you ſee that, then you are by the cape de S. Vincent, Upon the poynt of the cape ſtandeth a broken Abbey or Cloyſter, and cloſe by the poynt lyeth a high rock, being called by the Dutch ſaylers Monninck ſtrand.

A little about the poynt of the cape S. Vincent men may ankor in a ſand-bay, for a north and northweſt wind in twenty fathom.

About the ſecond poynt, to the eaſtwardes of te cape, is another Sand-bay, there is a good road for a northweſt & north winde in 14 or 15 fathom. From the cape de S. Vincent to cape S. Maries, or Faro, it is eaſt or a little more ſoutherly ninteene or twentie leagues: betwixt them both lye Lagos, or Laves, and Villa Nova. From cape S. Vincent to Lagos, it is eaſt and by north ſeven leagues, there is a tyde-haven through betwixt the rockes, behind a ſtrand of chindle, which falleth dry at low water, men may alſo ride there for a northweſt, weſtnorthweſt, & north wind, in ten or twelve fathom.

Villa Nova lyeth about foure leagues to the eaſtwards of Lagos; betwixt both, 3 leagues from Lagos, and one from Villa Nova, lyeth a ſuncken rock, where of men muſt take heed. Villa Nova is a good haven, it lyeth in north; and north and by weſt, at halfe flood you ſhall have there two fathom water; within in the haven on the eaſt ſide lyeth a little Iland or rock, and upon it ſtandeth a tower or little houſe, alſo there ſtands upon the land a great maſt with a barrell upon the top of it: when the little tower, or little houſe, and the maſt come one in the other, then you muſt ſayle right in with them into haven, alongſt by the eaſtland until you be paſt the litle tower, the weſt ſide is flat & ſhowld, when that you come by the maſt, then you muſt goe up to the weſtwardes before the towne of Villa nova, there you may anckor in foure or five fathom.

From Villa Nova to Faro, or cape de S. Maria, it is about 9 leagues. Upon the ſtrand ſtandeth a fire-tower, and from the poynt ſhooteth off a riffe which men muſt avoyd; into the haven of Faro men muſt goe in from the eaſtwards, it lyeth weſt, and weſtnorthweſt in, and they muſt leave the tower on the larboord ſide, and run in two or three fathom; being within, they may anckor over againſt the towne of Faro under the Iland in three fathom, it is upon the barre at halfe floot two fathom deepe. Faro.

The Cape S. Maries ſheweth it ſelfe at ſea (when you firſt ſee it) in one round hommock, which is a good mark for to know the whole coaſt of the Candado by.

Five leagues northeaſt and by eaſt from Cape S. Maria or Faro lyeth Tavila, that is a crooked ſhowld barre, which almoſt every yeare doth ſhift, and is not to truſt to for to ſayle into it, unleſſe it were firſt beakond, or ſet with buyes, it is at halfe flood ſcarce two fathom deepe, men lye there a little within the ſandhills in foure fathom.

From Tavilla to Ayemont the courſe is eaſtnortheaſt five leagues.

Ayemont is a deepe Barre, and one of the beſt havens in the whole Condaet, it lieth in northweſt by the eaſtland, at halfe flood it is three fathom deepe, there lyeth ſome ſhowlds before the havens, the markes there of are theſe There ſtandeth a three upon the eaſt ſide of the haven or rivers mouth, when Ayemonte commet right againſt over the tree, then are you to the eaſtwards of the ſhowlds or ſands, which lye before the haven, then you muſt go towards the foot ſtrand, and leade it in alongſt by it northweſt, and northweſt and by weſt; when you are within, you muſt goe up to the northwards before the town, or if you will go before Porte Maria, the northweſt courſe wil bring you there; within, it is wide and broad, and ſixe or ſeven fathom deepe.

There goeth in alſo a haven by the weſtland, where men come in, right out of the ſea, but that by the eaſtland is the beſt.

From Ayemonte to Leepe, or S. Michiels, the courſe is eaſt and by north ſeven leagues. Leepe hat uncertain bars which oftentimes ſhift, where men may not truſt themſelves to ſayle into without a Pilot, the Barre that goeth into the eaſtwardes of the great iland, is held to be the beſt, from thence they muſt go up to the weſtwardes towards Taron, and the River, and ſo come to Leepe, and there they take their lading in before the deepe. Leepe.

The Barre of S. Michiels was wont to run thwart over into ſea; and to be at halfe floot three fathom deepe, and before S. Michiels five fathom: from thence men may com through within over the ſhoulds at high water into the River at Leepe. Alſo men were wont to come in by Taron; but for certainty it is needfull to take in a Pilot for theſe Barres. S. Michiels. Taro.

From S. Michiels to Palos, or Saltees, the courſe is eaſt and eaſt and by ſouth 7 leagues, here men ſayle into the great Condaet, this haven goeth in at the weſt end of the Rooduyn, there ſtandeth a great broad tree to the weſtwards of that white cliffe, that you muſt keepe over a red ſand-hill, like as if it were red reath: this ſand-hill goeth ſloping downe: Runne in upon theſe markes unto the ſtrand, about north and north and by weſt, then ſhall the tower Odier which ſtands above Wolves, come over the eaſt ſide of the havens mouth, keepe them ſo ſtanding, and ſayle alongſt Palos. Saltees. VVolves.

longſt by the ſtrand, within two cables lengths untill you come about the poynt, and then you run up north to Palos or northweſt to Wolves, and ancker there in ſixe or ſeven fathom.

It is deepe there within, ſixe, ſeven, and alſo three and foure fathom in ſailing up, according as men doe ſayle farre up, or els not, this Barre is upon the ſhouwldeſt at halfe flood three fathom and a halfe, but within it is five fathom deep.

There cometh alſo a channell running out of the ſea betwixt the ſands, then Wolves cometh to the eaſt ſide of the havens mouth, and men ſayle n. n. w. in; when they are within the havens mouth, then they muſt doe as before is ſayd. This channell is three fathom deepe.

For knowledge of the land hereabouts you ſhall underſtand that at the weſt end of the Roduyn, lieth a white ſteepe land, clyffy, being reddiſh earth or chalke: hee that falleth therewith, may think that he is by the havens mouth of Saltees, upon it ſtand ſome little woods of threes, els the land is all without trees, reddiſh ſand, therefore called Roduyn, or Red ſand-hill.

Of the Tydes and Courſes of the ſtreames.

A ſouthweſt and northeaſt Moone maketh at all theſe places (on the ſea ſide) high water, & within in the havens a poynt or two later, according as they lye farre within the land.

As on all the coaſtes of Portingall, even ſo here alſo on theſe coaſts a ſouthweſt and northeaſt moone maketh the higheſt water.

A ſouthweſt and northeaſt Moon maketh on theſe coaſts full ſea, within the havens a poynt or two later, according as they lye far within the land.

A Northeaſt & ſouthweſt Moone maketh high water at the C. S. Vincent, and at the Cape S. Maria, alſo on the coaſts lying betwixt them both.

But to the eaſtwardes on the Condaet maket full ſea a ſouthweſt and by ſouth & ſouth ſouthweſt moone.

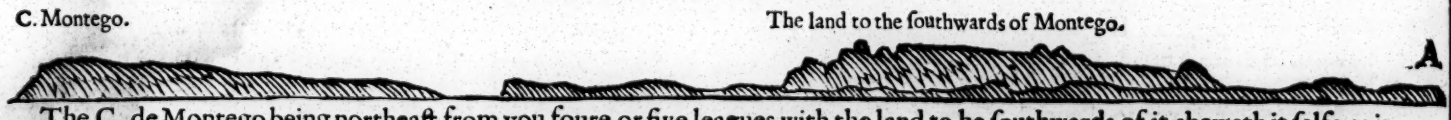
Courſes & Diſtances.

From Camina to Viana ſ.ſ.e 7 leagues
From Viana to Villa del Conde ſouth and by eaſt 7 leagues
From Villa del Conde to Port a Port ſ. and by eaſt 5 leagues
From Port a Port to Avero ſouth 10 leagues
From Avero to Cape de Montego ſoutſouthweſt 7 leagues
From Port a Port to the Burlings ſ.ſ.w. and ſoutweſt and by ſouth 29 leag.
From Avero to the Burlings ſ.w. 20 leagues
From Cape de Montego to Peniche, or Cape del Fiſiron ſouthweſt & by ſouth 10 leagues.
Ftom Cape de Montego to the Burling ſouthweſt 13 leagues
From Cape del Fiſiron, Peniche, or nova Liſbona, to the Rock, or Roxent ſouth 15 or 16 leagues
From the Burlings to the Rock, or Roxent, ſouth and by eaſt, and ſ. 1. e. 16 leagues
From the Burlings to the Cap S. Vincent ſ. and by e. 53 leagues
Erom the Burlings to the great Canaries, ſouthſouthweſt 248 leagues
From the Burlings to the Iland Palma ſouthweſt and by ſouth 256 leagues
From Roxent to the C. Pitcher, or S. Uves poynt ſoutheaſt and by ſouth 10 leagues.
From C. Pitcher the Cape S. Vincent ſouth and ſouth and by eaſt 29 leag.
From Roxent to the Cape S. Vincent, ſouth and by eaſt 37 leagues.
From Roxent, or the river of Lisbone, to the great Canaries ſ.ſ.w. weſterly 240 leagues.
From the river of Lisbone to the Ile de Salvages ſouthweſt and by ſouth 201 leagues.
From the River of Lisbone to Porto Santo ſ.w. 160 leagues.
From the River of Lisbone to the Ile Madera ſouthweſt 173 leagues.
From the River of Lisbone to the Iland Tercera weſt 273 leagues.
From the Cape S. Vincent to Lagos, or Laves eaſt and by north 7 leagues.
From Lagos to Villa Nova eaſt 4 leagues.
From Villia Nova to Cape Maria, or Faro, eaſt and by ſouth 9 leagues.
From C. S. Maries, or Faro, to Tavila, northeaſt & by eaſt 5 leagues.
From Tavila to Ayemonte e.n.e. 5 leagues.
From C. S. Vincent to C. S. Maria eaſt 19 leagues.
From C. S. Maries to Leepe, or S. Michiels eaſtnortheaſt 17 leagues.
From C. S. Maries to Saltees eaſtnortheaſt 24 leagues.
From C. S. Vincent to the C. Cantin ſouth 87 leagues.
From Cape Vincent to Cape de Geer ſouth weſterly at leaſt 133 leagues.
From C. S. Vincent to the Iland Lanzerotte ſouthſouthweſt 165 leagues.
From C. S. Vincent to the great Canaries, ſouthweſt and by ſouth 210 leagues.
From Cape Saint Vincent to the Ile de Palma ſouthweſt 224 leagues.
From C. S. Vincent to Porto Santo ſouthweſt and by weſt 139 leagues.
And to Madera ſouthweſt and by weſt 157 leagues.
From C. S. Vincent to the Ile de S. Maria weſt 245 leagues.
From C. S. Maria to Sibiona eaſt 29 leagues.
From Cape S. Maria to the Straite e. ſ. e. and ſoutheaſt and by eaſt 45 leagues.
From C. S. Maria to C. Cantin ſouth and by weſt 90 leagues.
From C. S. Maria to the great Canaries ſouthweſt and ſouthweſt & by ſouth 220 leagues.
From Cape S. Maria, or Faro, to the Ile de Madera ſouthweſt and by weſt 93 leagues.

Heights.

Port a Port lyet in 41 degrees.
Avero in 40 degrees 26 min.
Cape de Monrega lyeth in 40 deg. 8 minutes.
The Burlings in 39 deg. 40 min.
Roxent lyeth in 38 degrees 53 minutes, or as ſome hold in 39 degrees.
Cape Pitcher. or S. Uves poynt lyeth in 28 degrees 25 minutes.
The Cape de Saint Vincent & Saint Maria lye in 37 degrees.

How theſe Lands doe ſhew themſelves at ſea.



The C. de Montego being northeaſt from you foure or five leagues with the land to he ſouthwards of it sheweth it ſelfe as is portrayd in this and the figure following at the letters A A they belong one to the other.

This belongeth to the former, and is the land to the ſouthwards of Montego, untill thwart of the Burlings.

Thus then shew the Burlings when the northermoſt are eaſt from you a league.

The land betwixt Peniche and Roxent, or the Rock, sheweth is ſelfe as is portrayed in theſe three figures following when the high land to the ſouthwards of Peniche, being called yong Roxent, is eaſt from you, the like letters, as A A and B B belong one to the other.

This belongeth to the fomer figure, and is the land to the northwards of the Rock, or Roxent.

This followeth the former figure, untill Roxent, or the rocke, at the B one to the other.

Thus ſheweth the Rock, or Roxent, when it is ſouth and by eaſt, and yong Roxent is northeaſt and by eaſt from you, and that you are cloſe by the land:

When the Rock or Roxent is eaſt and by ſouth, and eaſtſoutheaſt from you ſeven leagues, it ſheweth it ſelfe thus.

When the Rock or Roxent is northeaſt from you ſeven leagues, it ariſeth thus.

The land to the eaſtwards or to the ſouthwards of Roxent towards Reſtiers, ſheweth it ſelfe as ſtandeth portrayed in this and the figure following.

This belongeth to the former.

Cape Pitcher.

Thus ſheweth the coaſt betwixt the River of Lisbone, and S. Uves poynt, called C. Pitcher.

Thus ſheweth S. Uves poynt when you come from the northwards.

Thus ſheweth S. Uves poynt when it lyeth eaſt and by north 6 leagues from you.

Thus ſheweth S. Uves poynt when it is northeaſt and by north foure or five leagues from you.

In this forme ariſeth S. Uves poynt when it is northnortheaſt five or ſixe leagues from you.

Thus ſheweth the land about the C. de S. Vincent, when you come from the northwards, and ſaile alongſt by it.

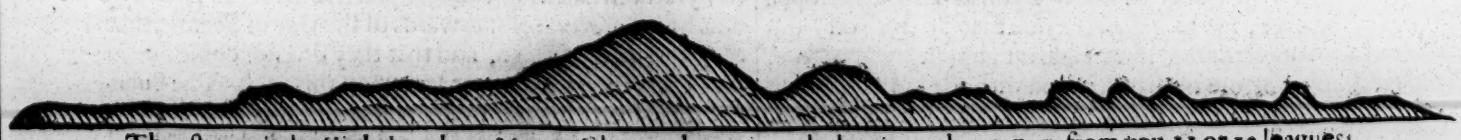
Cape S. Vincent.

Mount Chigo.

The Cape de S. Vincent ſheweth thus, when it is north and by eaſt, and northnortheaſt from you about 8 leagues. The Vigebergh or Mount Chige lyeth then northeaſt and by north from you, in forme as is here portrayed.

When the Vigheberghen, or Mount Chigo is northnortheaſt and northeaſt and by north from ou 12 or 13 leagues, it ſheweth thus, in one long hill, going downe flat at both ends, with another peece of land, much lower to the eaſtwards of it.

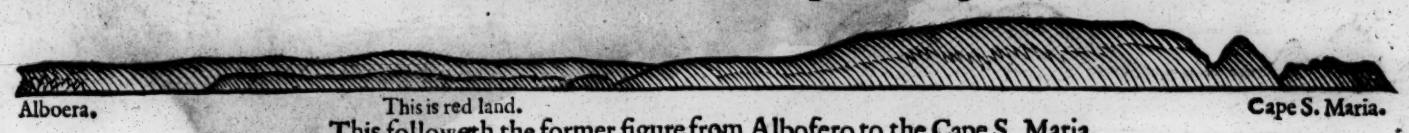
Thus ſheweth the Cape S. Vincent, when it lyeth northweſt 7 leagues from you.



Thus ſheweth the Vighebergh, or Mount Chigo, when it is with cleare weather n. n.w. from you 11 or 12 leagues.

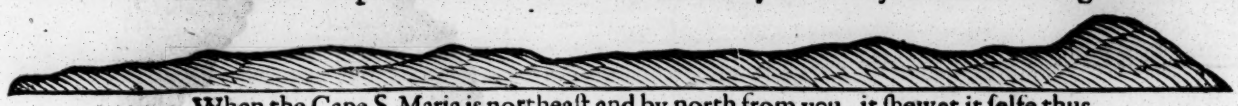
Vyghe-

Thus ſheweth it ſelfe the land about Lagos and Villa nova, when you are thwart from Villa nova, not farre from land, a little to the weſtwards of Lagos, lyeth a white poynt, where by men may eaſily know Lagos. The Cape S. Maria ſheweth it ſelfe then, as in the figure following.



This followeth the former figure from Albofero to the Cape S. Maria.

Thus ſheweth Cape S. Maria when it is northeaſt and by eaſt from you nine or ten leagues.



When the Cape S. Maria is northeaſt and by north from you, it ſhewet it ſelfe thus.

The Fift Demonſtration,

In Which

Are ſhewed the Seacoaſtes of Andaluſia from Palos untill you are paſt the Straights by Madril, and the coaſt of Barbarie lying over againſt it, and alſo the cape Spartell on the coaſt of Barbarie to the ould Mamora.

For to ſaile into the River of S. Lucas.

From Saltees to the river of S. Lucas, the courſe is ſoutheaſt and ſoutheaſt and by eaſt betwixt 8 and 9 leagues.

If you will ſayle into the river of S. Lucas, then ſayle alongſt the red ſand-hils, ſo long untill that you get the towne of S. Lucas in ſight about e. ſ. e. from you, there lieth a white cloyſter to the eaſtwards of the town, againſt the high land, and there ſtandeth a great tree upon the high land, bring the tree even to the north ſide of the cloiſter, ſo that you may almoſt ſee through betwixt thē but not over the Cloyſter, keepe then ſo ſtanding, and ſayle right in wit them, & ſo you ſhal not come to neer the rocks to take hurt of them, and you ſhal have upon the ſhowldeſt at low water and neepe tydes, 3 fathom, and at high water 22 foot, or ſcarce 4 fathom. When the Caſtle of Chipiona and the Church beginne to come one in the other, then you come to the firſt rocks or ſhould, wen the Church & Caſtle are right one over the other, then they ſtand ſouth ſouthweſt from you, then you are upon the ſhouldeſt of all, but when the caſtle with the church come againe one through the other, then you get againe deeper water, 3 fathom and a halfe, and 4 fathom at low water with a neepe tyde, ſayle in alongſt upon the foreſayd markes of the cloyſter and the tree, but take good heed that you bring not the tree over the Quire, at the ſouth end of the cloyſter, for you ſhould then come very cloſe to the rockes, rather bring the tree a little to the northwards of the cloyſter, for you can not lightly take hurt of the red ſand-hils, but you may borrow of them upon your lead in 3 and 4 fathom. There ſtands alſo a mill to the eaſtwards of the towne, take heed that you bring not that alſo over heround cloyſter that ſtandeth a little to the eaſtward beneath at the towne, but keep them a handſpikes length aſunder, and then you ſayl in the beſt deep. But if the foreſayd mil, and that round cloyſter come one in the other when you ſayle in, then you ſhall (without ſayle) come upon the rocks or ſhowld. When you are within over the ſhowldeſt, ſayl then towards the ſtrand of S. Lucas, untill that you ſee altogether open into the river, for to avoyd the riffe that ſhooteth off from the n. w. poynt of the river, ſayle on alongſt by the ſhore, and anckor before the little church with the croſſes (which ſtands below in the ſand-hils) in 5, 6, or 10 or 12 fathom, ſo neere as you pleaſe. Men may alſo turn out at this ſame channell with indifferent ſhips or barks, but they muſt take good heed, it is not there very broad.

There goeth in alſo a channel by the land of Sipionen or Chipiona, for to find it, you ſhall ſayle in within two cables lengths neer by the foreſayd land, untill that you be within the ſecond ſhouwld, then you muſt edge ſomewhat off from the land, untill you come upon the foreſayd marks of the cloyſter and the great tree, then you muſt run in alongſt upon them, as is before taught. The river of S. Lucas is good for to know, by the Rooduyn, or red ſand-hils which lyeth to the weſtwards of it.

For to ſaile in alongſt by Sipiona.

From Sipionen to Cales Males the courſe is ſ. e. 9 leagues Cales is knowne by the mountaine of Granade, when that is e. n. e. and eaſt end by north from you, ſayle then right in with it, and you ſhall not ſayle to fall right before Cales. At the poynt of Sipiona lye many rocks above water, and betwixt the poynt of Sipiona and Cales. Foure leagues from Sipiona lyeth Rotta, there ſhooteth off a great ledge of rocks from the poynt.

Cales.

For to ſaile into the bay of Cales. Los Puercos.

He that wil go into the bay of Cales, let him run in right with the rockes which lye on the weſt ſide of the Bay, being called los Puercos, and within two cables lengths in alongſt by them in 6 or 7 fathom, untill he come before the town of Cales, and anckor there ſo deep as he pleaſeth, in 8, 10, 12, or 15 fathom, the farway lyeth in moſt eaſtſouth-eaſt and ſoutheaſt and by eaſt.

Diamant.

There lyeth a rock under water called the Diamant, about n. n.e. and n. e. and by north from the Puerco, a great half league. Whē S. Katharins chappell upon the northland is e. n. e. from you, then are you thwart of that rocke, there is at halfe flood 3 fathom water upon it, the marks of this rock are theſe: When Mary church cometh over the north end of Cales, (that is a cloyſter which ſtandeth without Cales) there ſtands alſo a houſe upon the hill, where men goe alongſt by, when they goe to Sheres, when that houſe cometh over the chappel which ſtandeth upon the water ſide, to the weſtwards of Marie port: when theſe markes come together one in the other, then you ſhowld ſayle upon the foreſayd rock, there is upon the ſhowldeſt of it a high water, 3 fathom and a halfe water upon it. But ſet the two high hills which are to the ſouthwards of the way of Sheres, that they be a little aſunder, and that they doe not come one in the other, then you cannot ſayl upon this rock. The Puercos rock lye from the north poynt of Cales about halfe a league. He that lies before Cales in the road, hath Puntall ſouth from him, or there abouts, according as he lyeth neer

Markes of the Diamant.

to

Out Mamora

Larache

Rege boom

Wit Clif

Arzila

Heuvelken

C. Spartel

Tanger

BARBARIÆ

De STRAET VAN GIBRALTAR

Out Casteel

Mallabata

Alcasar Segher

Tetuan

Schominkel bergh

Tingis Toren

Rasel Kasf al Porgilis

Castellija

Ceuta

C. Tetuan

Rif

Tarya

Netgalli

Casbesa

Penon de Velez

Punta de S. Sebastiano

I. de S. Pedro

Isola de Cadiz

Puerto Snaco

Fuerte Real

Soutlandt

Los puercos

Diamant

Rotta

S. Lucar de Barrameda

Sibilia

Clif

Roodtsyn River

Casteel

van Sivilien

Soutlandt

S. Catrine Capel

Porta S. Maria

Forcade

Xeres

Estepona

Marbella

Tangerola

Ca. de Malaga

Malaga

De Custe van Hispangien vande Riviere van Sivilien Tot Malaga ende De Custe van Barbarien van out Mamora tot Penon de Velez Nieulijcx Beschreven door Iacob Aertsz Colom

Duytsche mijlen 15 voor een graadt Lie. d'Allemaigne en un deg.

Spaansche mijlen 17½ voor een graadt Lie. d'Espai 17½ en un deg.

Engl. en Fra. mijlen 20 voor een graadt Lie. Ang. et Fra. 20 en un deg.

Les Costes Marines d'éspaigne entre la Reviere de Sevilien et Malaga. et les Costes de Barbaryen depuis out Mamora jusques a Penon d Velez.

2

39

To sayle from Cales to the Strait.

Riffe of Tariffe.

Tanger.

Cape de Brita.

ay of Gibraltar.

to Calles. But to the southwards of Cales lieth a rock, come not neerer that then in seven fathom.

The Bay of Cales is wyde & broad, men lye there in 5 & 6 fathom, the northwest wind cometh there open in. If any man therefore would go further in behind Puntal, let him goe in southeast betwixt the poynt of Port real & Puntall, and run up about the poynt of Puntall, there men lye land lock for all windes: there men may lay thier ships dry a ground for to make clean. He that will goe into the Creke, must take a Pilot, and run up into the water of Port real leaving the little Iland on the larbord side, and then Herods Creeck shall open it selfe, and there he must sayle up, keeping the middle of the channell, till the come before the Saltheaps.

To sayle from Cales to the Strait.

For to sayl from Cales to the Strait, men must go away south, & south & by east to the C. de Trafalgar, and then they shall run far enough without the banke or rocks which lye off s. e. from Cales. From the poynt of S. Sebastian to Cape de Trafalgar, which is the north poynt of the Strait on the west side it is s.s.e. ten leagues. About two leagues to the northwards of the cape, lieth Conil, there is a faire sandbay where men may ankor in 12, 13, and 14 fathom clean ground.

Hee that desireth to sayle into the Straite of Gilbraltar, comming from Cales, let him goe from the poynt of Saint Sebastian, which is the westermost poynt of the Iland Cales, south and by east, and soutsoutheast, towards the Cape de Trafalgar, untill he be a good wayes without the land for to avoyd the Spanish coast which is fowle: there lyeth off west and by south from the Iland Tariffe, a banck of stones two leagues, or two leagues and a halfe into sea, whereupon is eight nine, or ten foote water, when it bloweth hard, men may see it break. The foresayd poynt of S. Sebastians, and the cape de Trafalger lye ten leagues asunder.

Riffe of Tariffe.

When you are then somewhat without the Cape de Trafalgar, and set your course southsoutheast, and southeast and by south, then you shall fall with the land of the Barbary coast, within the Cape de Spartell, about thwart of Tangar. lying in a great bight and sand-bay. Upon the west poynt of this bay of Tanger, standeth a castle somewhat high, and yet somewhat higher upon the high land, standet a little watch-tower: but to the eastwards of Tanger standeth also and old ruinous watch-tower, whereby Tanger is very good to be knowne. From Tanger to Ape-hill, the coast lyeth most e. northeast, & east & by north, that is the right course for to sayle through the Strait. If you wil sail into the Strait by nigh, then keepe to the Barbary coast, which is very cleane, & there you can take no hurt: but the Spanish coast is fowle, as is be fore sayd. They that will saile alongst by the Spanish coast, they must goe close alongst by the shore, and runne through betwixt the Iland Tariffe and the foresayd fowle grounds, close alongst by the Iland, or els must keepe farre off from the Iland, for to runne alongst without the showlds; but in the middest, neere a like unto both lands it is Best.

Tanger.

Three leagues to the eastwards of the Iland Tariffe lyeth the poynt of Cabrita, being the west poynt of the great Bay of Gibraltar over agáinst the hill of Gibr: a little to the w. wards of it, is a good road for a northeast wind, in 12, 10 & 8 fathem, not farre from the shore, thwart of a great rock, which lieth close upon the water side, a litle to the eastwards of the fire-tower: A little to the westwards of that firetower which standeth upon the foresayd poynt, is a fair sandstrand, betwixt the 2 towrs there you shall lye smoot for the western grown sea.

Cape de Brita.

At Gibralter is a faire Bay, almost like a haven: if you will anckor in the Bay of Gibralter, then saile so farre into it, untill that innermost poynt of the hill of Gibralter, doe stand east from you, thereabouts it is deepe 5 or 6 fathom, & clean ground: towards the mill it is showlder water of 3 fathom. Men lye there in the Bay landlockt for a w. wind, a s. winde cometh from the point of Gibraltarhill, but a s.w. wind that bloweth there open in. Frō thence are brought good wines.

When you will set saile from the road of Gibralter with an easterly wind, it is good to beare up somewhat before the wind towards the west shore, & then forth out alongst by the lee shore, for the easterly winds do fall with such whirling & fore-slaughes, from over the high land of Gibraltar, that you shall be hardly able to get out of the Bay alongst by the high land. When you com from the eastwards, and will saile out through the Straits, & that you are somwhat neere to the Spanish coast, then you must be very carefull, for thē you bring the hill of Gibraltar, against the high land of Barbary, & in regard the land to the northwards of Gibraltarhil is low, it seemeth (to look to) to be nothing els, then as if there were the opening of the Straites. It hath heretofore happened, that some which have so mistaken it, have sailed into the bay, thinking it to be the opening of the Strait, & so have lost their ships there. There fore it is very need, that men take great care not to mistake them selves of the hill of Gibraltar, & if men do take heed of it, it is good for to know.

Bay of Gibraltar.

Estepona lieth 5 leagues to the eastwards or to the northwards of Gibraltar, betwixt thē both stand divers fire towrs upon the coast, there is clean ground for to ankor. If you wil ankor to the eastwards of Gibraltar, by the nex tower of Gibralter, then bring Gibralter s. s.w. from you, & anckor in 25 fathom, there is cleane ground, & blacksand; but if you wil anckor by the second firetower, there is a valley, & there you may fetch water, & anckor in 20 or 22 fathom, there is a valley, & there is also clean ground, & better lying for to set sail with eastly winds, for those that are bound out of the Strait. Before Estepona men may ankor in 14 fathom, that is a place for to lade fruite & wines; 5 or sixe leagues to the eastwards of it lyeth Marveles, betwixt them both stand 5 watch towrs upon the coast.

Estepona.

From Gibralter to Marveles the course is n. e. and by n. distant 12 leagues, if you will anckor at Marveles, then you must look out for two Packhouses which stand upon the strand and a great square watch-tower close to the eastwardes of the foresayd Packhouses: bring the gate of the towne so, that you may see through betwixt the Packhouses and the watch-tower, and anckor there in nine or ten fathom. Right before Marveles, the ground is not cleane. About a shot of a Cast peece to the westwards of the town, men may fetch fresh water.

Marveles.

From Marveles to Fangerola it is 5 leagues e.n. e. betwixt them both stand also 5 watch-towers. Fangerola is a castle; and hath a faire sand-bay, there is good anckor ground in seven or eight fathō, a flat rising ground, men may lye there land-lockt for a westsouthwest wind.

Fangerola.

From Fangerola to C. de Moll, the w. poynt of Mallaga, the course is forth e.n..e. two great leagues: but from the w. poynt of Mallaga to the town of Mallaga, the course is n. e. & n.e. & by e. 4 leagues, it is there betwixt them both a faire strand, where men may anckor all alongst in 10 or 12 fathō.

C. de Mol

Mallaga is knowne by these markes: There standeth a castle to the eastwards upon the high land, & there come 2 walles downewords towards the sea to another castle which lyeth by the waterside. Before that same castle is now the road, that wich was wont to be the right road, is now altogether spoyled by casting of ballast.

Mallaga.

If you will anckor in the road before Mallaga, then ankor in 10, 11, 12, 13, or 14 fathom, thwart off from the head, of that the head com to lye from you north & by east, there is very good ground the ankors hold there well, also wen lye there out of danger for the Moores.

Road before Mallaga.

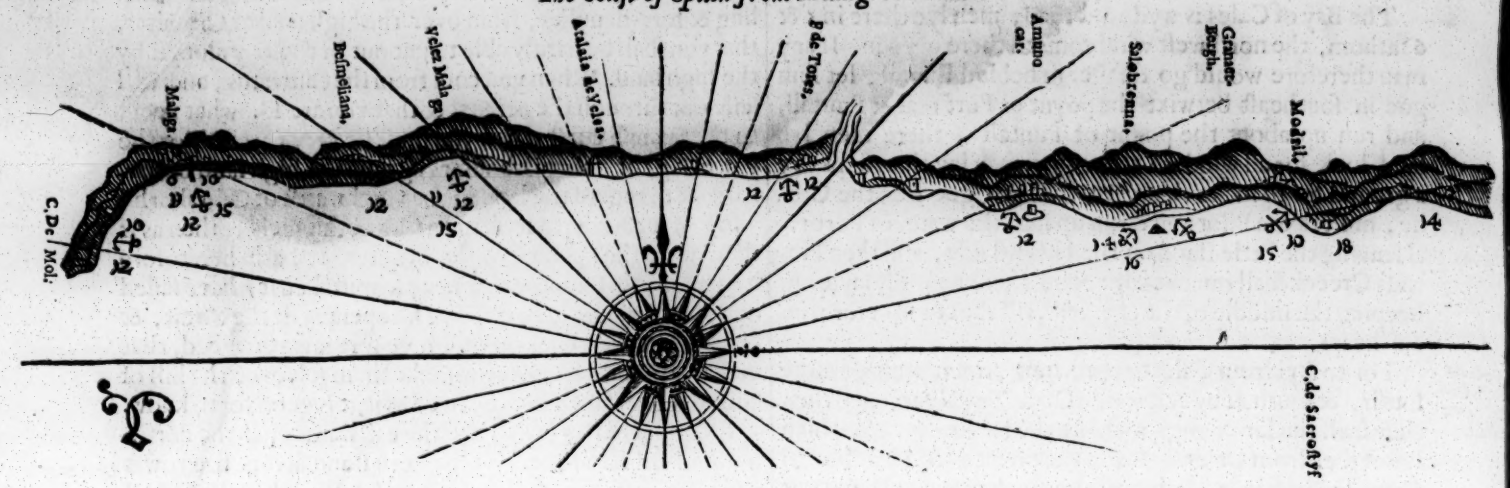
Velez Mallaga lyeth from Mallaga east & by north distant 7 leagues, betwixt them both men may Ankor all alongst by the shore. About a league to the westwards of Velez Malaga standeth a little castle; before it is good Ankoring in 10 or 12 fathom. By the next tower, to wit, the next to the little castle, there is fresh water to be gotten on the land.

The towne of Velez Malaga lyeth about a league within the land; but upon the strand standeth a great Packhouse which to see to, is like a castle.

Velez Malaga.

If you will ankor at Velez Mallaga coming from the westwards, then you must give the west point a birth; there lyeth off a bancke a good wayes into sea by the watchtower which standeth below, to the westwards of Velez Mallaga: but if you run alongst by the shore in 10 or 11 fathom, without comming

The Coaſt of Spain from Malago to Modril.



comming neerer the ſhore, then you can not take any hurt in the foreſayd banke or riffe. When as the towne of Velez Mallaga commeth a little to the eaſtwardes of the foreſayd Packhouſe or tower which ſtandeth upon the ſtrand, then Ankor in 12, 10, or 8 fathom, it is there all cleare & cleane ground.

From Velez Mallaga to Almunecar, the courſe is eaſt 15 or 16 leagues, betwixt them both it is all cleane Coaſt, men may anckor there under all the poynts which lye betwixt them both.

Two great leagues to the weſtwards of Almunecar lieth a poynt, whereupon ſtandeth a fire-tower, under it is a good road for a weſt wind.

If you will ankor at Almunecar, then ankor to the weſtwards of the rock, where the little chappell ſtandeth upon in 12 fathom, there is good ground, & ſhal lye there landlockt for an eaſt and weſtnorthweſt wind.

Salobrena lyeth from Almunecar 4 leagues to the eaſtwards, that is a litle towne with a little caſtle, & lieth upon a hill a little about the eaſt poynt of Almunecar, & right before Salobrena lyeth a little Iland, he that will anckor there muſt anckor to the weſtwards of it, there he shall lye landlockt for a n. e. wind, & alſo for a w. wind, then he ſhal have ſuccour of the eaſt poynt of Almunecar. Men may alſo well anckor to the eaſtwards of that little Iland, but to the weſtwards of it is the beſt road, there lye alſo all the ſhips, they may anckor there in 14 & 15 fathom, clean ſoft ground; in 16 fathom they ſhall lye ſomwhat too farre out. Men may (if need ſo require) run through betwixt the foreſaid little Iland, & the maine land, betwixt them both there is about 16 or 17 foot water, & the little Iland is round about clean, ſo that men may run very cloſe alongſt by it without feare.

Two great leagues eaſtwards from Salobrena in the ſame bight, a half league from the ſea ſide within the land lyeth Modrill, which hath 2 churches & ſome trees, thereabouts upon the water ſide ſtandeth a ſquare tower.

If you will ankor at Modrill, then anckor before the foreſayd ſquare towr, which ſtandeth upon the waterſide in 12 or 13 fathom, ſo that you may ſee the little tower upon the eaſt poynt even without the other poynt, there is cleane ground, men lie there landlockt for an eaſtwind, but a ſouth eaſt & a ſouth wind make there (like as at all places on theſe coaſts) a lee ſhore. A little to the eaſtwards of Modrill lyeth the poynt called cape de Sacraſtijf.

The Coaſtes of Barbary.

For to ſaile out of the Bay of Gibralter to Tetuan, then run over ſouth & by eaſt, about cloſe by the poynte of Seuta, eſpecially with ha weſterly winde, you ſhoulde otherwiſe be carried away ſo with the current, which thē commonly runs to the eaſtwards, that you ſhould fall too farre to the Leewards. Comming then about by the point of Seuta, you ſhal ſee out a head a black point, called cape Porkes, lying ſouth from the poynt of Seuta. When men lye in the Bay of Gibraltar they may ſee the foreſayd cape Porkes alongſt over Seuta: which is a poynt very good to beknown, ſail towards that poynt, & with a weſt wind luffe up ſo neere as you can When you come about that poynt, then you ſhal begin to ſee Tetuan, which lyeth up againſt the high land, a great league within the land: run then ſo far to the ſouthwards, untill that the eaſt end of the towne come right over a little round hommock, which is upon the high land within. In the middeſt of the towne ſtandeth a black tower, and in the innermoſt land of all within, lie 3 little hills, which doe (as it were) looke over the outermoſt inner land, bring the 3 little hills over the foreſayd black tower, & anckor then ſo farre from the ſhore, that the firſt little hil of the high land to the ſouthwards of Seuta towards cape Porques, come a litle without cape Porques, there it ſhall be 16 fathom deep, & good ſoft ground. If you anckor otherwiſe then upon theſe foreſayd marcks, you ſhall have bad, ſtony, & ſharpe ground. It hath happened that ſome ſhips have anckored there, buy their ankors fell ſo into the rocks, that they could not weigh them again, but muſt hew off their cables, & leave their ankors behinde them. Therefore if you come off from the poynt of cape Porques, then be carefull that you bring the foreſayd firſt litle hommock (which lieth a ſtearne of you in the bight of Seuta to the ſouthwards of Seuta) a little without the cape Porques, & ſo keep ſailing to the ſouthwards, & keep heaving of the lead continually without ceaſing, untill that you get the ſoft ground, ſo ſoone as you ſhal feele it, let then preſently your anckor fall, for the place where the ſoft ground is, is not two cables length in compaſſe great.

c. Porques

Marcks of the roade before Tetuan.

Tetuan lyeth from Seuta about 6 leagues, and three or 4 leagues to the ſouthwards of it lieth a point, called cape Tetuan, whereupon ſtandeth a tower. He that hath never been at Tetuan, might eaſily be miſtaken by that point, taking it to be cape de Porques, the ſooner becauſe that ſom ſay that Tetuan lieth at leaſt 9 leagues to the ſouthwards of Seuta. It hath happened that ſhips have ſayled unto this point, & have ſo runne paſt Tetuan, therefore it is beſt that men goe not to farre from the ſhore either by night or by day for to get the cape Porques certainly in ſight.

C. Tetuan

The bay of Tetuan betwixt the cape Porques and cape Tetuan, is a ſandbay altogether of ſand-ſtrand with low hommocks here & there upon the ſea-ſide, which a farre off ſeeme as if they were ſhipps, but the ground thereabouts is altogether foule, except ſuch a place as before is ſayd. Betwixt the cape Porques & Seuta it is alſo a faire ſandſtrand, but thwart of it is all good ground.

The Coaſt of Barbarie in the Straite of Gibralter, lyeth from Seuta to Cape de Spartell. w. and by ſouth, and weſtſouthweſt eight or nine leagues. But the Cape de Spartell, and Cape de Trafalgar on the Spaniſh ſide, ly north and by weſt, and ſouth and by eaſt eight leagues aſunder.

From Cape de Spartel to Arzila, the coaſt lyeth ſouth & by weſt ſeven leagues, betwixt them both alongſt the ſea, ſide, it is all lowe land, with ſome points and high land within, with a white ſand-hilly ſtrand. A little to the ſouthwards of the poynt of cape de Spartell, men may anckor for

Arzil

Alarache.

for easterly windes in twelue or thirteene fathom, cleane sand-ground, but so soone as the winde doth shift to thew they must be ready to get under sayle, lest they bee inbaye upon a lee shore.

About a league to the southwardes of the C. lyeth a little hommock upon the low land, by the water side, which sheweth (in sayling by) like a broken schonce or castle.

Arzyla is a little walled town lying upon the water side, and hath a litle bard haven, which men doe saile into at two places through a rouw of rockes, which lyeth before it, the northermost channell is the deepest, but both of them are not fit but for small shippes. Being come within the rocks, men do ankor betwixt the town ad the rockes.

From Arzyla to Alarache the coast lyeth also s. and by w. eight leagues, it is altogether a cleane coast with some rocks on the shore, the land betwixt them both is somwhat higher thē betwixt Arzyla & the C. with high land within. About an English mile to the soutwardes of Arzyla standeth a tower, and somwhat further to the southwards, upon the high land, stand some litle houses, but men cannot well see thē, except they saile close alongst by the coast. Betwixt Arzyla and Alarache, but somwhat neerer Alarache then Arzyla, lyeth on the sea side, a high white cliffe which is very good to be known, betwixt that cliffe & Alarache stādeth upon the high land a very high tree, with some other trees by it, when men come from the northwards alongst by the shore, that great tree seemeth to be a tower, yet somwhat to the southwards standeth an other great tree, but not so great as the other: when men begin to come neere to Alarache, or els by the southermost great tree, then the foresayd greatest tree doth hide it selfe behinde the land. These are all very good marcks for to know this coast by, betwixt these two places.

Allarache lyeth with a great castle upon the s. poynt of a river, which is very showld and crooked, the n. poynt is a low poynt going flat off, & within it, on the n. side of the river standeth also some buildings. Before the river leyth a barre of quicksand, which lyeth off from the north poynt, where this ships may go in over with a spring tyde, through a Criek, els it is but for Barkes and Friggats: Men may ankor before it in the Roade in sixteen, 17, and 18 fathom.

Alarache. Alarache is under the command of the king of Spaine, & is litle or nothing used either by English or Dutch-men.

He that saileth alōgst this coast, must not come very close to the shore, unlesse it were with a hard Levand, or easterly winde, with calme weather there goeth sometimes a veri great grown sea out of the west or northwest, so that somtimes men can hardly get of from the shore.

From Alarache to Old Mamora the coast lyeth south & by west, and southsouthwest betwixt 7 & 8 leagues, it is low land with sand-hills witth few places that are good to be knowen, all alongst even to Mamora.

He that cometh out of the sea, and falleth with the land here on this coast, shall perceive little knowledge of the land, unlesse hee sall with some of the inhabited places. This Old Mamora was wont also to be a haven, but is now altogether cast to of the sea.

Of the Tydes and Courses of the streames.

Before the Condaet on the coast a s.s.w & n.n.e. moon maketh high wat.

Before Palos Moguer & wolues maketh full sea a south & north moon.

Before the river of S. Lucas, and at Cales before the bay maketh full sea a southwest and by south, and northeast and by north moon.

At Cales in the Bay maketh high water a southsouthwest moone.

The ebb falleth without the Puercos to the southwardes towardes the Straet, and the flood towards the land to the northwards: but for the most part, the floot falleth thwart in tho the land about the havens.

In the narrow of the Strait maketh high water a southwest & by south moon. The current runneth more to the westwards then to the eastwards; when it is faire weather there goeth commonly foure houres flood to the eastwards & 8 hours ebb to the westwards, but the most part of the time according as the winde is, & at some times the current runneth so strong, that it rippleth as if there were shoulds.

Courses and Distances.

From Ayemont to Leep east and by north	7 leagues.
From Leep to Saltees or Palos east and east & by s.	7 leagues.
From Saltees to the river of S. Lucas, or Sipiona southeast and southeast and by east	8 or 9 leagues.
From S. Lucas or the point of Sipiona, to the point of Cales, the course is southeast	9 leagues.
From Cales to the point of the Strait southsoutheast	10 leagues.
From Cales to the great Canaries southwest	240 leagues.
From Cales to the Ile de Madera westsouthwest	200 leagues.
From C. Trafalgar to Tariffe the course is southeast	4 leagues.
From Tariffe to the poynt of Gibraltar east & by n.	5 leagues.
From the poynt of Gibraltar to Marveles n. e. & by n.	12 leag.
From Marveles to Fangerola eastnortheast	5 leag.
From Fangerola to the west poynt of Mallaga n. e.	2 leag.
From the west poynt of Mallaga to the towne of Mallaga northeast and northeast and by north	4 leag.
From the poynt of Gibraltar to Malaga n. e.	23 or 24 leag.
From Malaga to Veles Malaga east and east by north	7 leag.
From Veles Mallaga to Almunecar east	15 or 16 leagues.
From Almunecar to Salobrena east	4 leagues.
From Salobrena to Modril east & by north	2 leag.
From Modril to C. de Sacraftyf east southeast	1 leag.
From C. de Sacratyf to Castel de Fierro east & by north	4 leagues.
From Castell de Fierro to Adera east	8 leag.
From Adera to Almeria northeast	5 leag.
From Almeria to Cape de Gat southeast and by east	5 or 6 leag.
From the poynt of Gibraltar to C. de Gat east & by north	66 leag.
Frō c. de Spartell in Barbary to the Point of Apehil, the course is e.n.e.	81.
From Ape-hill to the point of Seuta s: e. and by e.	2 leag.
From the point of Seuta to the road of Tetuan s.	5 or 6 leagues.

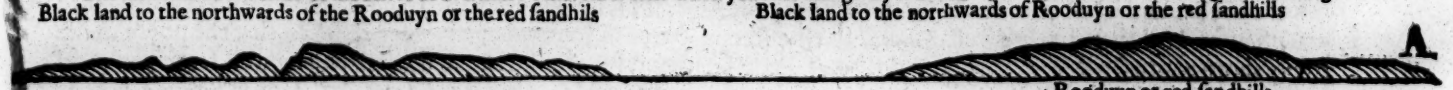
Depths.

The coast of the Condaet lyeth in 37 degr. & 15 or 20 min. The Illand Cales in 36 deg. 30 min. The middest of the Strait of Gibraltar leyth in 35 deg. & 50 min. Cape de Spartell lyeth in 25 degrees 32 min.

How these Lands doe shew themselves at sea.

The land betwixt Wolues & the River of S. Lucas. Sheweth it selfe when you saile alongst by it like as is portrayed in these three figures followig.

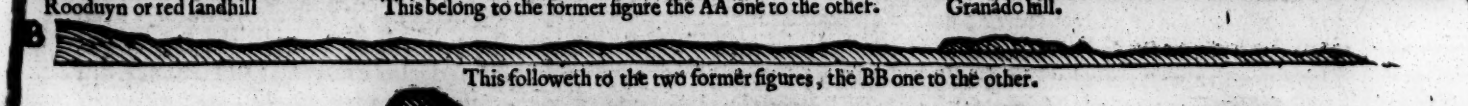
Black land to the northwards of the Rooduyn or the red sandhils



Black land to the northwards of Rooduyn or the red sandhills

Rooduyn or red sandhill — This belong to the former figure the AA one to the other. — Granado hill.

This followeth to the two former figures, the BB one to the other.



When you saile towards Cales, and the mountaine of Granado cometh to stand east from you then it sheweth it selfe in this forme

Cape Spartel east and by north — east and by south 6 leagues. — This hill lyeth farre within the other land, & sheweth it self our above the other land

Alarache

The coast of Barbarie from C. de Spartell, the south poynt of the Strait to the southwards, untill past Alarache sheweth like as is portrayed in these two figures when the Cape de Spartel is east and by north from you about eight leagues.

The

The ſixt Demonſtration,

Wherein

Are ſhewed the coaſtes of Barbarie from old Mamora to C. de Geer, together with the Flemiſh Ilands.

Mamora.

FRom Old Mamora to Mamora tha coaſt lyeth alongſt ſouth & by weſt and ſouthſouthweſt ſeven leagues. Before Mamora is a high broad ſandſtrand, and is not good to know, when you are ſomewhat off the land. The beſt knowledge thereof is this: When you come from the Northwards alongſt the ſhore, you have all high land within, that you ſhall leeſe when you come before Mamora; and when you come from the northwards, you cannot ſee the river of Mamora open before you bee paſt it, by reaſon that it lyeth in to the eaſtwards, & the north poynt is low. When you come ſomewhat cloſe by the ſhore, you ſhall ſee upō the high land in the Caſtle of Mamora (which the Spaniards have built there for the defence of the place) a very high maſt or ſtake, which you may ſee indifferent far off, & when it is cleare weather you may ſee alſo the high thick tower of Sallee to the ſouthwards ſtand againſt the land. Before the River lyeth a Barre which with a Spring hath 16 and 17 ſoote, and ſometimes more water; the Barre is oftentimes altred by the ſea. In the Spring it lyeth in commonly. e. ſ. e. & thereabouts. In the later part of the yeare it lyeth in more eaſterly by the caſting up of the ſea out of the n. In the Summer the windes blow alongſt the coaſt, the moſt part of the time out of the north, which cauſeth that the current runneth there to the ſouthwards, and in the winter they blow much & ſtrong out of the ſ.w. & ſ.ſ.w. In the winter men muſt be very carefull to get off betimes when the winde beginneth to come to the ſouth, or. ſ. e., then it is time to get off, for then commonly it ſhifteth to the ſ. w. and w. ſ. w. with foule weather, but when it commeth about againe to the weſtnorthweſt, or northweſt, then it is like to begood weather againe.

Road before Mamora.

The road before Mamora is about a league from the land in 18 and 20 fathom, there is clean ſandy-ground.

From mamora to Salley the coaſt lyeth ſ.w. and by ſ. and ſ. ſ. w. ſix leagues; betwixt them both it is low plaine land, and ſandy-ſtrand, with double land within, which is ſo even and ſmooth, as if it were planed over. From Mamora not halfe wayes to Sally, the ſtrand ceaſeth, and from thence forth to the ſouthwards it is a ſhore all of balck ſteepe ragged rockes with little hills, ſo that men cannot judge (when they are ſomewhat off the land) that it is doubleland within, by the plaines of it. When you are a league or two paſt Mamora, then you may ſee very plaine the high thick tower of Sally, and when you ſee the foreſayd rocky ſhore you may be ſure that you are paſt Mamora, that ſteepe rocky ſhore continueth from thence, untill paſt Fedalle, yet betwixt Fedalle and Sally is here & there a place of white ſtrand, betwixt the rockes, but to the northwards of Salley it is not ſo, but nothing elſe then perfect rocks.

Salley.

The towne of Salley hath a little tower, and lieth upon the n. ſide of the river, which is a low plain poynt of ſand. The caſtle hath alſo a little tower, and lyeth over againſt upon the ſ. poynt of the River, which is a high rocky poynt. There goeth a wall round about the high thick tower, and lyeth upō a point on the ſ. ſide within the River. Before the River is a Barre which oftentimes with ſtorms out of the ſea doth alter and hift, and is caſt too, ſometimes the channell runneth by one of the two poynts, & ſometimes againe right in the middeſt of the rivers mouth. Hee that will anckor before Salley, let him bring the foreſayd high thik tower (which ſtandeth within on the River) over the point of the caſtle, to wit, over the ſouth point of the River, which ſhall then ſtand from him neere about ſoutheaſt, & anckor there in thirty, eight and twenty, 24, 20, 18, or 16 fathom, ſo neere or farre off as hee will, there is clean black ſandy ground, nevertheleſſe that the shore thereabouts is ſo full of rocks and ſtones. Being come to ankor there men muſt shoot a shot to cauſe the Moores to come off. From Salley to the Iland Fedalle the shore lieth alongſt ſ.w. & by ſouth about 9 or 10 leagues, betwixt them both lye here & there in the ſandy-ſtrand, long black rocks (as before is ſayd) ſo that oftentimes men might take it to be Fedalle. The beſt markes for to know Fedalle by is a wood of trees about a leagues to the northwards of Fedalle, which ſtandeth below upon the land, & sheweth like a barne. When you come ſayling alongſt cloſe by the land, you shall ſee it above upō the land, but when you are ſomewhat off from the land, then you shall ſee the land within, above the wood of trees, (or Barne as men doe commonly name it for the likeneſſe of it) alſo there lyeth a litle round hommock about foure leagues to the northwardes of Fedalle, which you shall ſee above the reſt of the land, when you are ſomewhat off from the land, but when you come cloſe by the land, it hideth it ſelfe alſo behinde the double land. The coaſt betwixt Salley and Fedalle, is very plain and ſmooth double land, ſo that there is not another ſuch hommocke more betwixt them both, as that foreſayd hommocke, and in regard the coaſt thereabouts is altogether ſo plain, without any places good to be knowne, therefore men muſt take the more ſpeciall heed unto ſuch ſmall markes, for not to ſayle paſt the place where they are bound unto. Fedalle.

Monſor.

Betwixt the foreſayd Barne or wood of trees and Fedalle ſtandeth alſo a ruinons little Towne fallen downe, in a rough wood called Monſor, when you ſayle alongſt cloſe by it, you ſhall ſee yet ſome peeces of walles of it.

To the ſouthwards of Fedalle the land is agayne higher, and where the high and low commeth together, it doth make a clift, thereby the Iland of Fedalle is good to be known; when that clift is ſ. ſ. e. from you, then is Fedalle thwart of it alſo ſ. ſ. e. from you. If you will goe into Fedalle. then runne right with the foreſayd Barne, or wood of trees, untill you come within a league, or ſomewhat neere to the land, and then alongſt by it, and ſo you shall not miſſe the Iland Fedalle, but runne in betwixt it and the maine land, when that you come by the north poynt of Fedalle, then ankor betwixt the ſtrand and the foreſayd north point, but much neerer the Iland Fedalle then the ſtrand in ſix; ſeven or eight fathom, ſo that you come to lye with your shippe ſo farre in, that the foreſayd point of the Iland doe lye n.n. w. from you, then lyeth the foreſayd Barne e. n. e. from you, and Monſor a handſpikes length to the northwards of the Barn or wood of trees; you may alſo ankor in 12 fathō, ſo that the poynt of Fedalle lye weſt & by ſouth from you.

Road under Fedalle.

This bight within the Iland Fedalle, is a very bad place to lye in, for although you lye there ſo, that the poynt of the Iland lye northweſt, and north and by weſt from you, and with a cable on the Iland, nevertheleſſe the grown ſea cōmeth ſo hard rowling in about the poynt of the Iland (when the winde is weſterly) that you might rather deſire to lye in the open ſea, then within the Iland. From the north poynt of Fedalle shooteth of a ledge or riffe of rockes a Musket shot into ſea, the moſt of them lye high above water; within the Iland it is very flat towards the ſtrand, the Bay on the land is a faire ſandy ſtrand, there men may get ballaſt from the shore, but they muſt be very carefull to ſtand upon their guard, for there are dangerous people.

Depths & grounds about Fedalle.

Before Fedalle, to wit, to the northwards of it, thwart of the wood of trees, and allongſt to Salley, it is all showld water a league or two frō the land, all alongſt that diſtance off, it is not deeper then 23, 24, and 25 fathom cleane ſand-ground, thwart of into ſea from Fedalle it is alſo of the ſame depth, but foule ground.

Hee that will trade at Fedalle muſt anckor ſomwhat far in, for they have there no Boats, men muſt fetch the Moores aboard with the Boat.

Upon the n. poynt of Fedalle lieth a high hōmock, which sheweth a far of when men come in, as if it were a Caſtle fallē downe, but it is nothing elſe then rocks. At the ſouth-

end

end of Fedalle men may goe over on foot at low water to the maine land, but at high water the sea washeth through at two places, it floweth there seven and eight foot up and downe.

Three leagues s.w. and by s, and s.w. From Fedalle lieth an old ruinous towne fallen downe close upon the strand called Anafee or Anfee, it is a ling towne with many towers amongst the rest one high thick tower almost like the tower of Salley, but men must be indifferent close by it before you can see it. When you are thwart of Anafee, you may yet see the wood of trees to the northwards of Fedalle, which standeth then to see to from farre as a saile in the water. 2 leagues to the southwards, (or rather to the westwards) of Anfee, or Anafee, is a steep poynt with red cliffes, which seeme a farre off as if they were houses, such spotters men shall find at divers places on the coast.

Anafee.

From Anafee to Azamor the coast lyeth s.w. and by west westerly 18 leagues betwixt them both lyeth another fallen place called Lyones. Azamor hath a poynt lying out on the east side, when you come sayling alongst the shoare from the northwards, Azamor lyeth then about or behinde that poynt upon the strand, but standeth high. A little past Azamor lieth a river, and thereabouts are some towers in the low land.

Azamor.

Three little leagues to the westwards of Azamor lyeth the towne of Masagam, on a white strād close by the sea side this Towne is inhabited by the Portugalls, or Spaniards, it hath no towers, and sheweth to see to off at sea, in white spots against the land. When you are thwart off from it, you shall see to the southwards the high tower of Tyro (which is a towne fallen downe about two leagues to the westwards of Masagam) almost like the tower of Anafee. A little to the westwards of Masagam, at the west point of the Bay, shooteth off a ledge or riffe of rockes, almost a league off into sea, whereof the rockes at high water, lye most under water, and at low water are uncovered. He that will anckor there, and is not well acquainted, must take in a Pilot, which may bring him to a place where is good anckor ground, for although that it be a great Bay, yet nevertheless there are few places where the ground is cleane; but is at many places foule, so that but few shippes should be able to lye therein cleane ground. when you lye in the right road, then lyeth the east poynt of the Bay e. and the w. point about northwest from you.

Masagam.

Tyto.

Road under Fedalle.

About a league to the westwards of Tito, lyeth a steepe poynt, when you come from the eastwards alongst by the shore, you shall see no more land without the poynt, untill that you come neare it; when you begin to get it upon your broad side, then there commeth out to the westwards a great square cliffe, which is very good to be knowne, and is whitish with reddish spots, and seemeth a far off as if it were a wall. This poynt is called after that white poynt, Cape Blanco. About three leagues to the westwards of this Cape Blanco, lyeth a little tower upon the high land, neare by a valley called Casa Cavalgera, and two leagues more to the westwards lyeth upon the high land another little house called Emindra, but you must bee close by the land before that you can see it. From the foresayd C. Blanco to the C. Cantin, the coast lyeth westsouthwest, and southwest and by w. about nine leagues.

C Blanco.

Casa Cavalgera

Emindra.

C Cantin.

The C. Cantin is an even plaine poynt, when you are to the northwards of it, it sheweth flat towards the west, and going off towards the sea: there standeth a fire-tower upon it, but very small, that sometimes you can hardly see it. If you come from the northwards, or from C Vincent, and are bound to Safia, then set your course s, and s. and by east, and then you shall fall with the land foure or five leagues to the eastwards of C. Cantin, or if you saile a more westerly course you shall run till you come in the height of 32 degrees and a halfe, and then the C. Cantin shall lye due east from you, it is better to fall a little to the eastwards of the C. then to the westwards of it, because the windes blow there most common northerly. If you fall to the eastwards of the C. the coast lyeth there s.w. and by w. & w.s.w. and it is even plaine land. About ten leagues to the eastwards of the C. lyeth that little town Tyto, with a high white tower upon the sea side, and 5 or 6 leagues more to the westwards (betwixt Casa Cavalgero and C. Cantin) you shall see a little bight or bay, thereabouts lye upon the strand by the water side; great black rockes, which shew as if they were wrakes of shippes and then forth alongst to the C. it is a faire flat sandy strand. From the C. shooteth off a ledge of Rockes somewhat off into sea, which men must avoyd when they saile about the Cape.

Depths & grounds about Fedalle.

From Cape Cantin to the north point of Safia, the coast lyeth south, or somewhat more westerly, five or six leagues, betwixt them both it is a steepe rocky land without sandy strand, but above upon it plaine and even. A league to the southwards of the Cape lyeth a riffe or showld by the shore, by some called the Gold-bancke, and lyeth about a league off from the land: at some times of the yeare there is much fish to be taken.

To the southwards of the Bay of Safia is high uneven, and and most of all double land, but to the southwards of it, it is even and plaine, thereby men may easily perceive or discern whether they be to the northwards of Safia, or to the southwards of it.

Safia

If you will anckor in the Bay or Road before Safia, then bring the north poynt (whereupon standeth a tower) a little more westerly then north from you, and anckor then in 18 fathom. Or if you will anckor further in the bay, then bring the foresaid north point Northnorthwest or a little more northerly from you, and then the northermost of the two north poynts shall bee a shippes length without the southermost or the next unto you, run then so farre to the southwards untill that the tower where men doe land with the boats (which is a high square tower standing below even within the wall of the towne) come right over a tower which is fast to the wall, which commeth off from the Castle above to the southwards, so that the foresaid thicke tower below come right over the Haven, betwixt the poynt where the castle standeth upon the water side, and the rocks where men goe in betwixt. Or else anckor that the high Castle of Safia stand east and by s. and eastsoutheast from you, there it is sixteene, seventeene, and eighteene fathom deepe, good fine sandy ground. You may also anckor so farre within in the Bay in fifteen and sixteen fathom, that the north poynt come to be n.w. and n.w. and by n. from you. These are the *Summer* road; In the Winter men must anckor further from the land in 28 or 30 fathom, there the ground is course sand, Men may boldly run in before *Safia* into the road by night, there is nothing that they need to feare, which may doe them hurt, but the land.

For to anckor in the Bay of Safia

About two leagues from Safia, lyeth the south poynt of the bay, which is a low point that lyeth out, and two leagues to the southwards of it lieth another steep rocky point without sandy strand. By it goeth in the River Tausit up into the land unto Marrocos.

From the point of Safia to the Iland Mogodor the coast lyeth s.s.w. 19 or 20 leagues.

Against the n. east end of the Iland Mogodor, there shooteth off from the maine land, a great row of rockes; being hard sharpe rockes, whereof the outermost, or those that lye next to the Iland Mogodor, lye high above water: He that commeth from the northwards, and will saile in behind the iland Mogodor, must runne in betwixt the Iland and the foresaid rockes, close in alongst by the Rocks. It is there in comming in, betwixt the Iland and the Rockes five fathom deep. Within the foresaid rocks lye also some other Rockes on the larboard side, which at high water are under water, and at low water are uncovered. When you come to the end of them, you may luffe up about by them towards the maine land, and anckor there within them in 3 fathom at low water, there is good sand-ground. But yet nevertheless it is not there very good lying, for by reason of the breaking of the Sea upon the foresaid rocks, there goeth sometimes a great Sea, so that it is not good lying there with a storme, but further in, under the Iland it is good lying in two fathom and a halfe. From the south end of the Iland lyeth off a little riffe towards the maine land almost to the foot strand, and to the southwards of that foresaid little riffe, lyeth a bancke off from the maine land almost a league off into sea. If you will sayle out at the south end, then run alongst by the shoare of the maine land, untill that you bee about the foresaid riffe, and run out then upon you lead a-

Iland Mogodor.

long by the banck, and then you ſhall preſently get deeper water, of 4, 6, 8, and 10 fathom, and then you may ſaile there, where you deſire to be.

le Geer — From the point of Safia to C. de Geer, the courſe is ſ.ſ.w. about 43 leag. but from Mogodor the ſame courſe about 22 or 23 leagues. It is there betwixt them both a faire flat ſand-ſtrand, with double land, which at ſome places is very high.

C de Taffalana — About 8 leagues to the northwards of C. de Geer lyeth a poynt called C. de Taffalana, under which men may ride in good land-ground for e. and n.eaſt windes. The C. de Geer is lower then the land to the northwards of it, and falleth to the ſouthwards flat off into ſea, which men ſhal firſt perceive when they come within 3 or 4 leagues of it. About 4 leagu. to the northwards of the Cape lyeth a high Hommocke within the land, and further northwards the Land is yet higher; but when you came thus from the northwards neare C. de Geer, you ſhall ſee no more land to the ſouthwards of it. When you come to the point you muſt give the riffe a birth that lyeth off from it, and runne about by it, and then forth ſ.e. and by eaſt, and ſ.e. 7 or 8 leagues to *S.* Cruz, and then you ſhall ſee the Moores Caſtle ſtand on the high land: thwart of it lye a row of Rockes, about a Calliver ſhot in length, elſe it is all a cleane and cleare coaſt. For to anckor there in the Bay, runne ſo farre into the Bay, that the foreſayd Moores caſtle ſtand north from you, and the Chriſtians packhouſes northeaſt, there it ſhall be deepe (to the ſouthwards or the foreſaid row of Rocks) 7 and 8 fathom, the north poynt or Cape de Geer, ſhall then be from you n.w. & by weſt, there is the beſt road. In the Sommer time you may anckor nearer to the ſhoare, untill you come in 6 and 7 fathom. When you ſayle from C. de Geer towards the playe or the Roade, you muſt bee carefull to keepe cloſe aboard of the land of the Cape, and run alongſt by it, untill you come before the Caſtle. If you runne farre off from the ſhoare, you ſhall with northerly windes (which blow there much) be conſtrained to come in northeaſt and northnortheaſt, againe for to recover the ſhoare, therefore it is beſt to keep cloſe aboard the high land. He that ſhould come into the road here by night, muſt not upon a certain great forfeiture come nearer the ſhoare then in 12 or 14 fathom.

Riffe of C. de Geer

Road before S. Cruz.

In this Road men muſt bee very carefull and ready with their anckors, the ſmalleſt bower muſt be alwayes laid out for the wind which bloweth off the land, and the other anckors to ſeawards. The ſhoot anckor muſt bee alwayes ready againſt a ſtorme (which men may very well perceive before by the ſwelling or riſing of the ſea) to bring it out in the ſouthweſt. Alſo it is needfull to keepe the foreſaile to the yard, for to helpe themſelves with it the beſt that they can, if it ſhould happen that they ſhould be forced from their anckors:

In this Bay is much fiſh to be taken, when men lye there in the road, they take their turnes to goe out to fiſh.

From the C. *S.* Vincent South-Weſt and by Weſt 140 leagues, and from the Cape de Finiſterre South-ſouth-Weſt and *S.*W. and by S. 232 leagues, lyeth the Iland Porto Santo lying S.E. and n.W. upon each end of this iland lieth a great rock. The road is on the S.W. ſide, to the eaſtwards of the ragged rock, before a little haven where men may lye landlocks with boats.

Porto Santo

Madera

Serters

The Iland Madera lyeth from Porto Santo S.W. 16 leag. Southwards from the eaſt point of Madera, lie 3 ſmall rocky Ilands, being called the *Serters*, the northermoſt is the ſmalleſt, and lyeth about a league from the land from the foreſaid point, the ſouthermoſt is the greateſt, and lieth foure leagues from the land. He that commeth from the northwards, or from Porto *Santo*, may ſaile through betwixt them and the point of Madera, it is there betwixt them broad and wide, & alſo cleane and cleare every where, onely at the foreſaid eaſt poynt of Madera lyeth a ſuncken rock, whereof men muſt take heed.

S.Cruz.

At the ſouth ſide of the Iland before the towne *S.* Cruz is a good road in 20 fathom, but before Fonſiall is the chiefeſt Road for to lade: to the weſtwards of the towne lieth a great rock with a croſſe called the Lion, by it is the beſt lying in 30 or 40 fathom.

Marafilo

At the ſouthweſt ſide before Marafilo is alſo good anckoring in ſixteene or eighteen fathom. In all theſe foreſaid places is good ground for to anckor in.

Betwixt Madera and Teneriffe lyeth the little Iland Salvages, to wit, ſouth from the Serters forty leagues. North from the northeaſt point of Teneriffe ſeven and twenty leagues, and northnorthweſt from the northeaſt poynt of Great Canaries, forty, or two and forty leagues, it lieth ſ.w. and northeaſt and is about a halfe league long. The ſ.w. end of *S*alvages is foule farre off into ſea, therefore runne rather about to the eaſtwards of it then to the weſtwards, Three or 4 leagues ſ.w. from that poynt, amongſt other Rockes, lyeth one great rock which ſheweth a far off like a ſaile. Under the ſ.e. ſide of the Salvages is a good road for a n. w. and weſt wind. Salvages

Madera and the Iland *S.* Michaels lye n. w. and ſ. e. 135 leagues diſtant. At S. Michaels, the road is at the ſ. w. ſide of the Iland, when you come about one of the two poynts, either from the eaſt or weſt, then you ſhal ſee two little towns. Before the weſtermoſt called Punte de Gada, or Punt Alagato, is the Road in 20 and 25 fathom. SMichiels — Punto del Gado

Before the eaſtermoſt little towne lyeth a little Iland, betwixt that and the land of *S.* Michaels it is 5 6 and 7 fathom deep. Betwixt theſe two little townes, the coaſt lyeth w.n.w. and e.ſ.e.

From S. Michaels to Tercera the courſe is n,w. and by w. foure and thirty leagues. Under Tercera the road is on the ſ. ſide of the iland, to the weſtwards of the rockes, right before the towne Angra, betwixt two points that lie out, upon each of them ſtandeth a Caſtle for defence of the ſhippes which lye there in the Road, the weſtermoſt of the 2 points lyeth a good wayes further out to ſeawards then the eaſtermoſt, and hath upon the end of it, two very high, called Braſil; when you come out of the ſea, either from the eaſtwards or the weſtwards, it ſeemeth a farre off as if it were aſunder from the land. Theſe two foreſaid hils upon the point of Braſill, are ſo high, that in cleare weather men may ſee from thence 16 or 17 leagues farre off into ſea. Upon it ſtand 2 pillars, which men may ſee every where in the towne Angra, and a watchman thereby for to keepe watch, and to give them of the towne warning of the ſhippes that come about the Iland. As many ſhips as he ſeeth come from the weſtwards or the ſouthwards, that is, from the weſt-Indies, Braſill, or the Portingals Indies, ſo many Flags he ſetteth up upon the Pillar towards the weſt; when he ſeeth more then five ſhips, then he ſetteth up a great Flagge, which ſignifieth a whole Fleet. Likewiſe he doth the ſame upon the other Pillar towards the eaſt, for the ſhippes which he ſeeth come from the eaſt, from Portingall or from the northwards, ſo that there cannot a ſhippe come thereabouts, but men may ſee it preſently by that token in every corner and ſtreet of the towne. Tercera — Angra

He that commeth from the eaſtwards, or the northwards, and is bound into the Road of Tercera, let him run faire by the land of the eaſt poynt, and alongſt by it unto the 2 little Ilands, called the Ilheos, which lye a little to the eaſtwards of the road, about a bow ſhot one from the other. Men may run alongſt to the ſouthwards of theſe Ilands, or to the northwards of them, as they will, and alſo betwixt them both. Betwixt theſe little ilands and the maine land of Tercera, it is a great cannon ſhot broad, and 15 and 16 fathom deepe, thorow betwixt the little iland it is 5 and 6 fathom deepe cleane ſand-ground. Somewhat to ſeawards of theſe little ilands, lye 3 or 4 rockes above water, called Los Frayles. Being paſt theſe foreſaid little ilands, you muſt ſaile to the weſtwards, untill that you come neare to the foreſaid point of Braſill, a little to the eaſtwards of it you muſt ankor before the town of Angra in 10 or 12 fathom, or elſe men lay their ſea-ankor commonly in 16, and their ſmaller anckor towards the land in 8 or 9 fathom. Men lye there landlockt for a ſ.w. and n.e. and alſo for an e.n.e. winde, but a ſ.e. winde bloweth there flat open in. On the weſt ſide of the point of Brazill is alſo a great ſandy Bay for to anckor in. before a village called *S.* Martin For to ſail into the road of Tercera. — Los Frayles.

Three leagues to the eaſtwards of the Towne Angra, lyeth a bight called Porto Judeo, there the Spanniards landed with their forces, when they tooke in the Iland from the Portingals.

He that will ſayle from Tercera to Fayall, let him ſet his

courſe

courſe w.ſ.w.to the e.point of S. Georges, which is from thence ten leag.aſunder.Further, betwixt the Pico &S.George through to Fayall are 16 leag. it lyeth moſt w.n.w. through betwixt them and the Iland Fayall lyeth to the weſtwards of the Iland of the Pico a great lea. aſunder off from it.

He that will anckor in the Road of Fayall, let him anckor right before the village of Fayall in 14 or 15 fathom, there is ſandground; but there goeth a hard tide of flood and ebbe.

On the ſ.w.end of the Iland Fayall lyeth a little haven; for to ſaile in there, you muſt run in by the ſ.w.point, ſo long about by the ſhore, untill that you ſee the haven open, ſaile alongſt about by the ſ.w.point untill that you come in the narrow, betwixt the rocks which lye off from the w. ſide, ſo ſoone as you come within the rockes, let preſently your anckor fal in 5 fathom, & bring hawſers on the e.ſide on land, faſt to the pales, which are there made for the purpoſe: the haven is little ſo that men may lie in it with no more then with 4 or 5 ſhips. Further in it is ſhowld water.

Of the Tydes & Courſes of the ſtreames.

On the foreſaid coaſts maketh high water a ſ.ſ.w.& ſ.w.& by ſ.moon

Courſes and Diſtances.

From c.Spartel to c.Cantin it is ſ.w.ſoutherly. From c.Spartel to Madera w.& by ſ.& w.ſ.w.200.lea. From c.Cantin to Madera w.133.lea.

From C.Cantin to S.Vincent n. ſomewhat weſterly	90 leagues.
From C.Cantin to Teneriffe ſ.w.& by w	142 leagues.
From C.Cantin to C.de Geer ſ.ſ.w.	50 or 52 leagues.
From C.de Geer to C.de Non ſ.ſ.w.& ſ.& by w.	27 leagues.
From C.de Geer to the point of S,Cruz,ſ.e.	5 leagues.
From C.de Non to Oſſ in ſ.	13 leagues.
From C.de Non to C.de Bajador ſ.w. & by w.	69 leagues.
From C.de Geer to C.de Bajador ſ.w.ſomewhat weſterly	93 leagues.
From Safia to Madera e.and w.	130 leagues.
From C.de Geer to Madera w.n.w.	133 leagues.
From S. Michiels to Tercera n.w.& by w.	34.leagues.
From Tercera to the e.end of S. Georges w.ſ.w.	10 leagues.
From the e.end of S.Georges to Fayall w.n.w.	16.leagues.
From Saint Michaels to the C.de Finiſterre e.n.e.	247 leagues.
From Tercera to Roxent, or the River of Lisbon e.at leaſt	267 leagues.
From Tercera to C.de Finiſterre e.n.e. and e.and by n.	280 leagues.
From Tercera to the Lizart n.e.and by e.	287 leagues.

Heights.

Maſagam lyeth in 32 degr.46 min.
C.de Cantin lieth in 32 deg.32 m.the iland Mogodor in 31 deg.8 m.
C.de Geer in 30 deg. C. de Non in 28 deg. 32 min. C.de Bajador in 27 degrees.

How theſe Lands doe ſhew themſelves at Sea.

Caſa Cavalgero.

Thus ſheweth the land betwixt Malagam and C. Cantin.

Thus ſheweth it ſelfe Caſa Cavalgero when it is ſouth from you 6. leagues.

When Cape Cantin is n.e.and by e. 6 leagues, and the point of Safia e.ſ.e. 4 leagues from you, then they ſhew themſelves thus

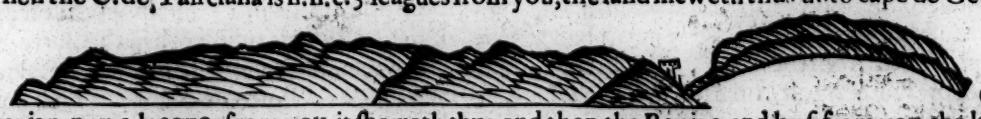
Thus ſheweth the land to the ſouthwards of the ſ.point of the Bay of Safia, when it is e.ſ.e. 3 leagues from you.

Mogodor.

When you are w.n.w.or thwart off from Mogodor, 3 leagues, then ſheweth it ſelfe thus. It is a high and double land

C.Taffelana.

When the C.de Taffelana is n.n.e.3 leagues from you, the land ſheweth thus unto cape de Geer.



C.de Geer

When the C.de Geer is n.n.w.3 leagues from you, it ſheweth thus, and then the Bay is e.and by ſ.from you, the land is with ſand-hils.

Thus ſheweth the Iland Saint Michaels on the n.ſide.

Thus ſheweth the Iland of Tercera, when it lyeth e.and by ſ.about 7 leagues from you.

When Tercera is 4 or 5 leagues ſ.w.from you, then it ariſeth thus, the w.end of this iland Tercera is higher then the e.end; thereby it is indifferent good to be knowne.

Thus sheweth Tercera on the n. side.

Thus sheweth Tercera on the south side when you saile alongst by it

Thus sheweth the Iland S. Georges when it lyeth southsouthwest 7 leagues

When the west end of S Georges is south and by east and the east end southeast from you, it sheweth it selfe thus, being 8 or 9 leagues off from you.

When the Iland Pico is i.e. from you, it sheweth it selfe thus, the high Pieck you may see about 40 leagues off from it at sea

The Iland Fayal sheweth it selfe thus when it is south from you 8 or 9 leagues

when the Iland Gratiosa lyeth westsouthwest 4 leagues from you, then it ariseth in this forme.

The seventh Demonstration.

In which are to be seene the Canary Ilands.

THe chiefest Ilands of the Canaries are 7 in number, Lancerota, Forteventura, or Porteventura, great Canaries, Teneriffe, Gomera, Palma, and Ferro. The Iland Lancerota lyeth from C. S. Vincent s. s. w. distant about 165 leagues. It hath one haven upon the northeast end, betwixt the two Ilands Alagranca & Gratiosa, where men may come in from the northwards and lye landlockt for all winds, it is deep there 10, 15, & 20 fathom and they may sayle out again to the southwards along by Lancerota. At the east side of Lancerota is a good road before the Towne of Lancerota, there lyeth a banck to the northwards of it, which men must avoyd, and run about to the southwards of it, there they may ankor in 10, 11, & 12 fathom: on the same s. e. side ly also 2 bad havens a great shot of a cast peece one from the other, the northermost is called Porto de Naos, & the southermost Porto de Gavallos, which we have demonstrated in a large volume in the n. w. corner of this card, & shewed the depths with numb. of feet at high water & springtide.

Porto de Naos, the deepest of these bad havens, goeth in n. w, and by n. betwixt 2 ledges of rockes, there stand 2 beacons of heapes of stones, in manner as the warders of Norway, which you must bring and keepe one in the other, and saile so right in through betwixt the 2 foresaid ledges of rockes. The shoaldest of the Barre betwixt the 2 ledges of rockes, is but a short space, a great shippes length long and is deepe at high water 17 foot, and at low water 7 foot, so soone as you shall be over, it will be presently 20, 24, 26, and 28 foot deep, then you must edge up n. and then presently n. e. and ankor behinde the rockes which lye to the northwards of the Barre, in the Channell the ground is rocky, hard, and uneven. If a ship should come to strike there, it should presently be broken. The ledge is so without as it is within, very steep, so that you may come very close unto it, where the anckers stand marked, it is altogether cleane sandy ground, 30 & 34 foot deep at high water with a sea wind there can goe here a great sea, but that happeneth seldome, for the winds doe blow most out of the n. and n. e. and therefore it is almost alwaies there smooth water This haven is very narrow betwixt the rockes which lye to seawards of you and the shore, it is but a little more then a great cables length broad, and from the havens mouth to the main land about a Cables length and a halfe. The Havens mouth also is not broad, but at high water the rockes doe flow a good wayes on both sides under water, which at low water againe are uncovered.

Betwixt Porto de Naos and Porto de Cavallos lye two little Ilands, the northermost is the greatest, at high water men may goe through with boats within the Ilands, into Porto de Cavallos, but not with shippes, for at low water it falleth dry there within. Vpon the southermost little Iland standeth an old Castle fallen downe, which heretofore hath beene spoyled by Englishmen. From the south side of that litle iland shooteth off a riffe, and to the southwards or the westwards of it lyeth in the Barre, which is very narrow, nor above ten fathom broad, upon the maine land stand also two little beakons, as at Porto de Naos, which you must bring one in the other, and saile so right in. At high water and spring tide there is no more then twelve foot water, or a halfe foot more, the ground in the havens mouth is also hard, & nothing elle then rocks, where you must goe in over, but within it is cleane sand ground, where you may lye a ground without any danger, with a shippe that draweth tenne or eleven foot water. At the highest water, the most part of the rockes on both sides of the Havens mouth, lye under water, so that at many places men may goe over them with boats. At low water there remaineth in this Havens mouth no more then a foot, or a foot and a halfe depth, so that a shippes boat cannot goe in, within men ly landlockt for all windes, and although it blow very hard, yet the water is alwayes smooth. In both these havens a s. and by w. and n. and by e. moone maketh high water. Neare these Havens there are no houses where Spaniards or Moores doe dwell, then only by Porto de Cavallos a little Church, where they have Masse sayd on Sundayes, when shippes lye there. Men goe from thence betwixt the Mountaines to the town, which lieth 3 leagues from thence. He that will come here must provide himselfe with fresh water, for there is very seldom fresh water to bee gotten. Upon this land there groweth neither fruit

nor

length
Cables
t high
water,

ittle I-
ay goe
s, but
. Vpon
lowne,
om the
hwards
w, nor
o little
the o-
re is no
ound in
ere you
ou may
enne or
rockes
t many
here re-
t and a
ly land-
water is
nd by e.
houſes
e Caval-
, when
aines to
me here
om freſh
er fruit
nor

Duÿtsche mÿlen 15 voor een graadt Lie. d'Allemai 15 en un degre

Spaansche mÿlen 17½ voor een graadt Lie. d'Espai 17½ en un deg

Eng en Fra. mÿlen 20 voor een graadt Lie. En et Fra. 20 en un d.

Hoogen tooren

Casteel

Jooren

Hevelken

De Schuer een bos boomen

Monsor

Salle

Mamora

Our Mamora

C. Blanco

Roocloven

Casa Cavalgero

Duÿtsche mÿlen 15 voor een graadt Lieues d'Allemaigne 15 en un degre

Spaansche mÿlen 17½ voor een graadt Lieues d'Espaigne 17½ en un degre

Engel en Fra. mÿlen 20 voor een graadt Lieues Angl. et Franc 20 en un degre

Emundra

Saffia

Zuydbeck

I. Mogod

Weverplaets

Noordbeck

C. Cantin

Rif

De Reede van Punte del Gada int eÿlandt S. Michiels

Punte del Gada

Villa Franca

De Cuſt van
Barbarÿen van out Mamora
Tot Capo Blanco

Steÿle Clif

Lÿons

Aſamor Rivier

Maſagam

Stroenrif

Tytz Vervallen Stadt

C. Blanco

De Cuſt van
Barbarÿen van Capo Blanco
Tot Capo de Geer. bÿ
Jacob Aertſz Colom.

Cruÿſtenen Pachuÿſen

S. Crutz

Moren Caſteel

Bucrenmaret

C. de Geer

C. de Jaſſelana

De Reede voor de Stadt
Angra int eÿlandt Tercera

Duÿtſche mÿlen 15 voor een gegadt Li. d'Allem 15 een graet
Spaanſche mÿlen 17½ voor een gegadt Lie d'Eſpan 17½ een gr de
Eng en Fra. mÿlen 20 voor een gegadt Li Angl ee Fr. 20 Engſ

I MADERA

Maraſylo

Fonlyael

S. Cruz

Serters

Porto Santo

Os Ilhoes

Los Frailes

De
Eÿlanden Madera
en Porto Santo